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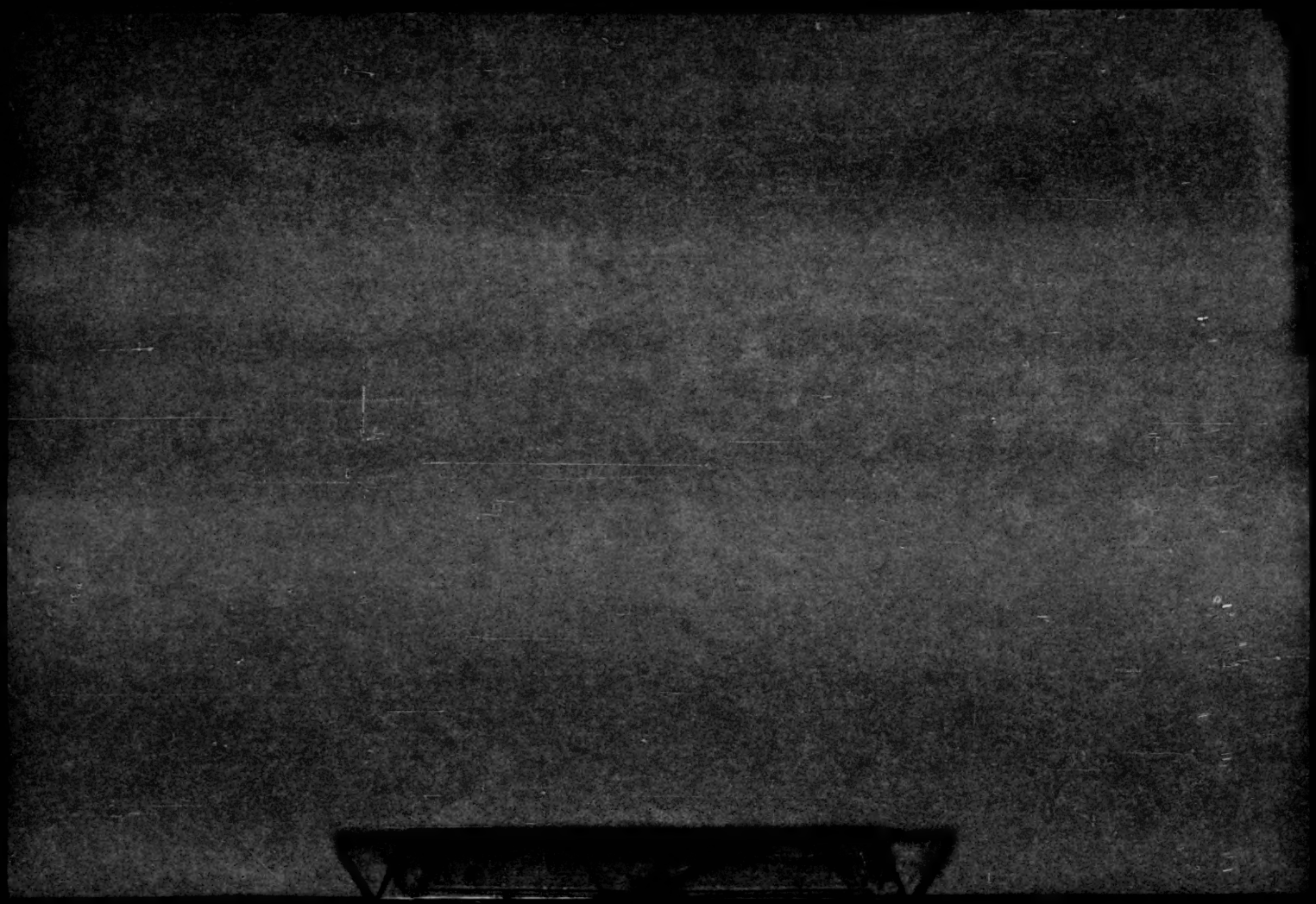

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THE UPRIGHT POSTURE*

BY ERWIN W. STRAUS, M. D.

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*Reviewed in the Veterans Administration and published with the approval of the chief medical director. The statements and conclusions published by the author are the result of his own study and do not necessarily reflect the opinion or policy of the Veterans Administration.

I. Introduction

A breakdown of physical well-being is alarming; it turns our attention to functions which on good days we take for granted. A healthy person does not ponder about breathing, seeing, walking. Infirmities of breath, sight, or gait, startle us. Among the patients consulting a psychiatrist, there are some who can no longer master the seemingly banal arts of standing and walking. They are not paralyzed; but, under certain conditions, they cannot, or feel as if they cannot, keep themselves upright. They tremble and quiver. Incomprehensible terror takes away their strength. Sometimes a minute change in the physiognomy of the frightful situation may restore their strength. Obviously, upright posture is not confined to the technical problems of locomotion. It contains a psychological element. It is pregnant with a meaning not exhausted by the physiological tasks of meeting the forces of gravity and keeping the equilibrium.

Language has long since taken cognizance of this fact. The term "to be upright" has two connotations: to rise, to get up, and to stand on one's own feet; and the moral implication, not to stoop to anything, to be honest and just, to be true to friends in danger, to stand by one's convictions, and to act accordingly, even at the risk of one's life. We praise an upright man; we admire someone who stands up for his ideas of rectitude. There are good

reasons to assume that the term "upright" in its moral connotation is more than a mere allegory.

The upright posture distinguishes the human genus from other living creatures. To Milton, Adam and Eve appeared as ". . . Two of far nobler shape, erect and tall, God-like erect, with native honor clad. . . ." Some biologists, however, would like to take exception to this praise, and, in slightly more prosaic statements, they indict the upright posture as a cause of hernias and flat feet. However this may be, whether the poet is right or his misanthropic opponents, whether upright posture is an excellence or not, in any case it is a distinction. It does not occur in any species besides man.*

Upright posture, while unique, is also essential. This is no necessary consequence. The exceptional might be nothing but a peculiarity, an accidental caprice of nature. However, there is no doubt that the shape and function of the human body are determined in almost every detail by, and for, the upright posture. The skeleton of the foot, the structure of the ankle, knee, and hip, the curvature of the vertebral column, the proportions of the limbs—all serve the same purpose. This purpose could not be accomplished if the muscles and the nervous system were not built accordingly. While all parts contribute to the upright posture, upright posture in turn permits the development of the forelimbs into the human shoulders, arms, and hands, and of the skull into the human skull and face.

With upright posture, the vertebral column takes on for the first time the architectural function of a column. The skull rests on the articular surfaces of the atlas (which here, indeed, deserves its name) like an architrave on the capitals of columns. This arrangement makes it possible and necessary for the atlanto-occipi-

*F. Weidenreich, in his book *Apes, Giants and Man* (University of Chicago Press, 1946), discusses the relationship between man and his simian ancestors. There he enumerates the main peculiarities which, compared to the condition of the apes, characterize man in his upright posture. The human leg, which he mentions among other things, "is stretched in hip and knee joints to its maximum extent and adduced toward the midline, so that the knees touch each other, while in anthropoids, even if the latter succeed in standing and walking upright, the legs remain bent in hip and knee joints and are held in abduction, so that anthropoids always stand stooped, with their knees crooked and turned outward." In the so-called normal attitude of man, therefore, the lines connecting the centers of hip-, knee-, and ankle-joints are all located in the same frontal plane. The plumb line passes through this plane. Furthermore, the center of the hip joint is, for each leg, vertically above the center of the knee and ankle joints.

tal joint to be moved forward toward the center of the base of the skull, resulting in the typical configuration of the human skull, the extension of the base, and the closing vault, which in turn provides wider space for the orbitae. The skulls of the other primates still show the shape characteristic of other quadrupeds, in which the head does not rest on the vertebral column but hangs down from it. The foramen magnum accordingly is in a more caudal position; the clivus cuts the vertical at a more obtuse angle. The other primates—as it has been said—are built to stand upright but not for upright posture.*

Because upright posture is the "*Leitmotiv*" in the formation of the human organism, an individual who has lost or is deprived of the capacity to get up and keep himself upright depends for his survival completely on the aid of others. Without their help, he is doomed to die. A biologically-oriented psychology must not forget that upright posture is an indispensable condition of man's self-preservation. Upright we are, and we experience ourselves in this specific relation to the world.

Men and mice do not have the same environment, even if they share the same room. Environment is not a stage with the scenery set as one and the same for all actors who make their entrance. Each species has its own environment. There is a mutual interdependence between species and environment. The surrounding world is determined by the organization of the species in a process of selecting what is relevant to the function-circle of action and reaction.[1] Upright posture pre-establishes a definite attitude toward the world; it is a specific mode of being-in-the-world.

Relating the basic forms of human experiencing to man's upright posture may well be called an anthropological approach, if that term is used with its original connotation. It was not until the middle of the nineteenth century that the meaning of "anthropology" was confined to zoological aspects, to a study of man as an

*The comparison of man and other primates is a time-honored topic, widely discussed among pre-Darwinistic zoologists. Most of the characteristic differences enumerated by Weidenreich were known to the anatomists of the eighteenth century, who also considered the possibility of a common origin. Daubenton published, in 1764, a paper about the different positions of the foramen magnum in man and animals (*Mémoires de l'Académie de Paris*, 1764, quoted after Herder). Even the sentence passed on upright posture because of its inherent evils is old enough. Moskati, in 1771, comparing the essential differences of man and animals, came to the conclusion that upright posture disposed heart, circulation and intestines to many defects and diseases (*Vom Koerperlichen Wesentlichen Unterschiede der Thiere und Menschen*, Goettingen, 1771).

animal in his evolution and history as a race. The nineteenth-century view aimed to see man exclusively, and understand him completely, as an animal. It was motivated by an antagonism to theology. Instead of seeing man created in the image of God, it wanted to see man as the descendant of the monkey. This anti-theological view remains theological because of its concern with refutation. However, one can and should consider man in his own right without either theological or anti-theological bias. Anthropology can be developed, indifferent to both the Biblical account and the evolutional theory of genesis.

The writer's interest is in what man is, not in how he supposedly became what he is. Palaeontology tells what man or his ancestors once were, not what man actually is. Even if one concedes to palaeontology that it has discovered the living or extinct ancestors of man, it has little to say as to how the change to modern man came about or as to what its final result was. Looking from man to the hominids* or the other primates, we see what man is no longer. Looking from the other primates to man, we see what the other primates are not yet. Any explanation of the causes of evolution demands a knowledge of both the old and new forms. No designer of an automobile would try to explain its present form and shape by mere reference to its forerunners. It is true that a modern car has some basic traits in common with the old buggy, but just that which gives an automobile its characteristic shape is not learned from the old form. It is the automobile's own function and dynamic structure that determine its shape.

Palaeontologists are inclined to exaggerate their gratitude to the ancestors of humans. In a very illuminating survey of the development of the humerus from fish to man, Gregory[2] states that man has inherited the basic pattern of locomotion from the earliest vertebrates, and that he owes the modeling of a potential humerus and a potential ulna to the crossopterygians of the Devonian age. Still, man's gait and behavior seem slightly remote from the Silurian ostracoderms.

*The early Darwinists were on the search for the "missing link" connecting modern man with the living anthropoids. Today, the opinion prevails that the human branch parted from the modern anthropoids "much earlier than we ever dreamed." Weidenreich believes that this separation occurred in the Miocene period, or not very long afterward. Portman places it in the late Cretaceous period. From there on, a fragmentary line of hominids, documented by fossils in Europe, Asia, and Africa, leads toward modern man. There is also another line, still more hypothetical, leading to the living anthropoids: chimpanzee, gorilla, orangutan.

With all due respect for the accomplishments of those early ancestors, we should not forget to investigate our own situation. Man is not only the end of a long development; he also represents a new beginning. One may doubt if old rocks will reveal all the secrets of human existence.

II. Human Kinematics

a. *Acquiring Upright Posture*

Upright posture has a delayed beginning in the life of an individual. The heart of the unborn beats in the mother's womb. Breathing starts with the first cry at birth. Upright posture keeps us waiting. Even when the physiological conditions—such as the maturation of fibers, the development of postural reflexes, or, later, the elongation of the legs—are fulfilled, the child will not master upright posture at once. He has to learn it, to conquer it. The acquisition will pass through several phases, which, although not completely separate, are sufficiently distinct. Progress is slow; it takes a number of years. This development will be followed here from the getting up, to standing and finally to walking.

The origin and the beginning of upright posture do not coincide, just as the first cry, the beginning of the functioning of breathing, does not mark the origin of breathing. The conditions surrounding the beginning of a function, whether it be breathing or speaking or standing, do not at all give an account of the structures of breath, speech, upright posture, or of their origins. As long as one speaks about breathing and walking, the distinction appears banal and not worth mentioning. There are, however, situations where the distinction is less obvious but not less true. The writer wonders whether genetic psychologists sometimes actually do confuse beginning and origin?

Upright posture characterizes the human species. Nevertheless, each individual has to struggle in order to make it really his own. Man has to become what he is. The acquisition does not make him an "absentee landlord." While the heart continues to beat, from its fetal beginning to death, without our active intervention, and while breathing neither demands nor tolerates our voluntary interference beyond narrow limits, upright posture remains a task throughout our lives. Before reflection or self-reflection start, but as if they were a prelude to it, work makes its appearance within the realm of the elemental biological functions of

man. In getting up, in reaching the upright posture, man must oppose the forces of gravity. It seems to be his nature to oppose, with natural means, nature in its impersonal, fundamental aspects. However, gravity is never fully overcome; upright posture always maintains its character of counteraction. It calls for our activity and attention.

Automatic regulation alone does not suffice. An old horse may go to sleep standing on its four legs; man has to be awake to keep himself upright. Much as we are part of nature with every breath, with every bite, with every step, we first become our true selves in waking opposition to nature. In sleep, we do not withdraw our interest from the world so much as we surrender ourselves completely to it. We abandon ourselves to the world, relinquishing our individuality. We no longer hold our own in the world, opposed to it. Awakeness and the force of gravity are mutually interdependent. While awakeness is necessary for upright posture, that is, for counteracting gravity, gravity determines waking experiencing. The dreams of one night are not related to the dreams of another night, but days are related to each other. They form a continuum, where every hour, every moment, anticipates the next one and prepares for it. Held back by gravity to a precise point, we can overcome distance only in an orderly sequence. During our waking hours, sequence means consequence. Gravity, which holds us in line, imposes upon waking experience a methodical proceeding. In sleep, when we no longer oppose gravity, in our weightless dreams, or in our lofty fantasies, experiencing becomes kaleidoscopic and finally amorphous. Sequence, then, no longer means consequence. Awakeness is no mere addendum, still less an impediment, to an otherwise happily functioning id. The waking man alone can preserve himself, and he alone can help drives to reach their goal.

In the Hobbesian philosophy, man, hunted by fear of violent death, creates the commonwealth to keep disruptive natural tendencies in check. A permanent, never-resolved, discord ensues between man in state of nature and man as a member of society. Locke, Rousseau, Freud, and many others took up the theme and added to it variations of their own. If only these many descriptions of man's state of nature were more than historical fantasies! Yet, one need not invent prehistory; we can make use of a very concrete experience. We can read man's natural endowment from

his physique. Considering man in his upright posture, we do well to envisage the possibility that, not society, has first brought man into conflict with nature but that man's natural opposition to nature enables him to produce society, history, and conventions.

The direction upward, against gravity, inscribes into space world-regions with spatial-emotional values, such as those expressed in high and low, rise and decline, climbing and falling, superior and inferior, elevated and downcast, looking up to and despising. On Olympus, high, remote, inaccessible, exalted, dwell the Homeric gods. On Mt. Sinai, Moses receives the Ten Commandments. Below in the depths, is Hades and the world of shadows. There, also, is the Inferno. However, such evaluations are not unequivocal. "Base" and "base"—these two words have, in spite of their phonetic resemblance, different etymological roots and opposite meanings. "Base," the adjective, is derived from the Latin root "*bassus*" with the connotation "short" and later "low," while "base," the noun, originated in the Greek root "*baino*"—"walking, stepping." The earth that pulls us downward is also the ground that carries and gives support. The weighty man signifies by his dignified gait that he carries a heavy burden but sustains it well. Upright posture as counteraction cannot lack the forces against which it strives.

b. *Standing*

In getting up, man gains his standing in the world. The parents are not the only ones who greet the child's progress with joy. The child enjoys no less the triumph of his achievement. There is a forceful urge toward the goal of getting up and of resisting, in a state of dangerous balance, the downward-pulling forces. There need not be any other premium, like satisfaction of hunger, attention, or applause. The child certainly does not strive for security. Failure does not discourage him. He enjoys the freedom gained in upright posture, the freedom to stand on his own feet, and the freedom to walk. Upright posture, which we learn in and through falling, remains threatened by falls throughout our lives. The natural stance of man is, therefore, "resistance." A rock reposes in its own weight. The things that surround us appear solid and safe in their quiet resting on the ground, but man's status demands endeavor. It is essentially restless. We are committed to an ever-renewed exertion. Our task is not finished with getting up and

standing. We have to "with-stand." He who is able to accomplish this is called constant, stable.

Language expresses well the psychological meaning of standing, with all its facets. The coupling of the transitive and the intransitive meanings "to stand" and "to stand something" characterizes them as resisting, and therefore enduring against, threat, danger and attack. The etymological root of standing—"*sta*"—is one of the most prolific elements, not only in English, but also in Greek, Latin, French and German. It may suffice to mention only a few derivatives of an almost inexhaustible store. Besides combinations like "standing for," "standing by," "making a stand," there are many words where the root has undergone slight changes but is still recognizable, as in "state," "status," "estate," "statement," "standard," "statute," "institution," "constitution," "substance," "establish," "understand," "assist," "distant." This whole family of words is kept together by one and the same principal meaning. They refer to something that is instituted, erected, constructed, and, in its dangerous equilibrium, threatened by fall and collapse. Falling is not always tragic. Clowns, modern and old, primitive and sublime, all have made use of falling as a reliable trick to stir up laughter.

With upright posture, an unescapable ambivalence penetrates and pervades all human behavior. Upright posture removes us from the ground, keeps us away from things, and holds us aloof from our fellow-men. All of these three distances can be experienced either as gain or as loss.

1. (*Distance from the Ground.*) In getting up, we gain the freedom of motion and enjoy it, but at the same time we have lost secure contact with the supporting ground, with Mother Earth, and we miss it. We stand alone and have to rely on our own strength and capacities. With the acquisition of upright posture, a characteristic change in language occurs. In the early years, when speaking of himself, a child uses his given name. However, when he has reached the age when he can stand firmly on his own feet, he begins to use the pronoun "I" for himself. This change marks a first gaining of independence. Among all words, "I" has a peculiar character. Everyone says "I," but for himself alone. "I" is a most general word. At the same time, it has a unique meaning for every speaker. In using the word "I," I oppose myself to everyone else, who, nevertheless, is my fellow-man.

Because to get up and stand are so demanding, we enjoy resting, relaxing, yielding, lying down, sinking back. There is the voluptuous gratification of succumbing. Sex remains a form of lying down, or as language says, of lying or sleeping with. Addicts, in their experiencing, behavior, and intention, reveal the double aspect of sinking back and its contrast to being upright. A *symposium* found the ancient Greeks, a *convivium* the Romans, stretched on their couches until, after many libations to Dionysus and Bacchus, they finally sank to the ground. *Symposium* means "drinking together, a drinking party." It could be well translated by the characteristic German word, "*gelage*." Plato's dialogue first helped the word "*symposium*" to reach its modern connotation. The old and new are not so far apart as one might assume. Their relation can also be expressed—Plato clearly indicates this—as the difference between being upright and sinking.

2. (*Distance from Things.*) In upright posture, the immediate contact with things is loosened. A child creeping on his hands and knees not only keeps contact with the ground but is, in his all-fours locomotion, like the quadrupeds, directed toward immediate contact with things. The length-axis of his body coincides with the direction of his motion. With getting up, all this changes. In walking, man moves his body in a parallel transposition, the length-axis of his body at a right angle to the direction of his motion. He finds himself always "confronted" with things. Such remoteness enables him to see things, detached from the immediate contact of grasping and incorporating, in their relation to each other. Seeing is transformed into "looking at." The horizon is widened, removed; the distant becomes momentous, of great import. In the same measure, contact with near things is lost.

Thales, the philosopher and astronomer, while watching the stars, fell into a ditch. A young child is close to the ground; to him the stars are far off. He does not mind picking things up from the ground; but, growing older, he will learn to accept our table manners, which remove even food to a distance. We set the table; we serve the meal; we use spoon and fork. Our feeding is regulated by a ritual, which we like to discard at a picnic. Artificiality and tools interfere with the direct satisfaction of hunger. The mouth is kept away from the plates. The hand lifts the food up to the mouth. Spoon and fork do not create distance; tools can only be invented and used where distance already exists. In the early

months of life, hands hold on to things in a grasping reflex. Not until the immediate contact of grasping is abandoned is the use of tools possible. This development is not simply the result of motor maturation. An imbecile may never learn, a paretic may unlearn, manners, not so much because of failure of the motorium as because of the loss and lack of distance. Pointing likewise presupposes distance. It appears to be a human activity. Animals do not easily, if at all, understand pointing to distant things.* Pathology reveals an antagonistic relationship between grasping and pointing. There are cases where pointing is distorted, while grasping either remains undamaged or is later intensified and becomes forced grasping.**

3. (*Distance from Fellow-men.*) In upright posture, we find ourselves "face to face" with others, distant, aloof—verticals that never meet. On the horizontal plane, parallel lines converge toward a vanishing point. Theoretically, the vanishing point of parallel verticals—to which we are comparable, standing vis-a-vis —is in infinite distance. In the finiteness of seeing, however, parallel verticals do not meet. Therefore, the strict upright posture expresses austerity, inaccessibility, decisiveness, domination, majesty, mercilessness, or unapproachable remoteness, as in catatonic symmetry. Inclination first brings us closer to another. Inclination,† just like leaning, means literally "bending out" from the austere vertical.

The dictators, reviewing their parading troops, tried to show by their rigid poses their imperturbable and unshakable wills. Formalized attitudes, and pantomimic, signifying gestures, follow the pattern set by spontaneous expressions. When we lower our heads or kneel in prayer, when we bow or bend our knees in greeting, the deviation from the vertical reveals the relation to it.

*It is the hunter who understands and interprets the dog's aiming as pointing. The "point" is the natural outgrowth of the dog's pausing previous to springing the game.

**Goldstein, Kurt: *Über Zeigen und Greifen.* der Nervenarzt. 1931. Exerimental ablations of cortical areas indicate that grasping is under the control of Brodmann's Area 6.

†The root is Latin, *clino*, to bend. It is interesting to see how greatly language is shaped in accordance with expressive phenomena. Not only does the English language have two words of the same structure from different roots; but there is the German word "*zuneigung,*" with still another etymological derivation, which, however, expresses the same meaning with the corresponding space-experience. All this points to the fact that metaphors do not simply carry over a meaning from one medium to another. There is a much more intimate relation, that between expressive motion and emotional attitude.

So it is with the expressions of reverence, of asking and granting a request, and many others. The formalization and shortening of social gestures sometimes make it hard to recognize their origin; but even the stiff forms of military greeting may, with a slight courteous bending of the head, be revitalized by spontaneous expression.

There is only one vertical but many deviations from it, each one carrying a specific, expressive meaning. The sailor puts his cap askew and his girl understands well the cocky expression and his "leanings." King Comus at the Mardi Gras may lean backward and his crown may slip off-center. However, even the disciples of informality would be seriously concerned if, on his way to his inauguration, a President should wear his silk hat (the elongation and accentuation of the vertical) aslant. There are no teachers, no textbooks, which instruct in this field. There are no pupils, either, who need instruction. Without ever being taught, we understand the rules governing this and other areas of expression. We understand them, not conceptually, but, it seems, by intuition. This is true for the actor as well as the on-looker.

One may argue that these are cultural patterns with which we grow up and that our final attitudes are the result of many infinitesimal steps. To support this view, one may point to the fact that gestures of greeting were different in the old days from ours, and are different in the Occident and the Orient. Yet, in spite of their divergences, they all are variations of one theme. They are all related to the vertical; they are all modifications of the upright posture. Exceptions only confirm the rule. We give our assent by nodding the head, obviously also a motion that carries the head downward following gravity, away from the vertical. It has been observed that this gesture is not universal, that there are peoples to whom the same vertical motion of nodding means negation or denial. However, these two forms of expression, which indeed resemble each other, are not identical. Our mode of assertion, as well as their negation, consists of a two-phased motion—the motion downward and the movement up and backward. While in assertion the accent is on the downward motion, negation chooses the opposite direction. The head is moved from the position of inclination back to the vertical, expressing inaccessibility and denial.

Cultural patterns do not arbitrarily create forms, but, within

the given framework, formalize a socially-accepted scheme, valid only for its group and period. With upright posture counteracting gravity, the vertical, pointing upward, away from the centers of gravity, becomes a natural determinant. The vertical is a constancy phenomenon. Its apparent position does not change, even if the head is tilted and, therefore, its projection on the retina varies. At an early age, children are able to draw a vertical or a horizontal line, to copy a cross or a square, but they fail when asked to copy the same square presented as a diamond.*

c. *Walking*

With getting up, man is ready for walking. The precarious equilibrium reached in standing has to be risked again. A quadruped rests with relative safety on his four legs, which inscribe an appropriate base on the ground. The center of gravity does not leave its position above this base even when the animal walks or trots. The human situation is different. The center of gravity is elevated high over the small base of support. This provides for greater flexibility and variability of movement, but it increases instability and the danger of falling. Man has to find a hold within himself. Standing and walking, he has to keep himself in suspension.

The legs support the body like columns; in the hip joint, the trunk rests upon the femur bones as upon pillars. At least, it seems to. The appearance is convincing enough for a hysterical person to use it as a model for his astasia-abasia. If one tries, however, to carry through the comparison in detail, one sees immediately the striking contrast to the architectonic principles of column and pillar. Many old temples have collapsed, leaving their columns still standing erect. The stone pillars of a bridge are constructed from the foundation upward. Each lower section really carries the upper one, which can be removed without unbalancing the lower ones. Neither the skeleton nor the legs will stand of their own power. The legs could not do it, even if the muscles could still contract and were not severed from their origin on the pelvis. The legs have to be held in suspension by the counteraction of the trunk muscles and by the counterweight of the trunk.

*Gibson and Mowrer (Determinants of the perceived vertical and horizontal. Psychol. Rev., 45, 1938) assumed that our orientation in space is determined by postural factors, while visual stimulation is of secondary importance. Asche and Witkin, however, in their more recent experiments, came to the opposite conclusion (Studies in space perception. J. Exper. Psychol., 38, 1948).

A column, a pillar, a tower, taper off. Their bases are broader than the top. Human legs also have a conical shape, but the bulk is high. The origin of the muscles, and therefore their main volume, is on top. The muscles extend with their tendons downward from pelvis to knee and again from knee to ankle. Their contraction, however, is directed upward.

With the circumference of the thighs near the hip joint considerably larger than the circumference around the ankle, the leg resembles an inverted obelisk more than a column. This leg-obelisk cannot support itself on its tip. There is a gyrostatic system of balance, holding the legs as much as being carried by them. The old anatomical names of muscles and the traditional signification of their functions are often misleading. The biceps femoris and hamstring muscles, the so-called flexors of the leg, bend the lower leg in one position only, while in another they extend the knee and the hip. The erector trunci and the muscles of the legs co-operate —with gravity as their invisible partner—as synergists, originating in adjacent areas of the ilium and the sacrum. They act upon the pelvis in opposite directions. They turn the pelvis around an axis, connecting the centers of the hip joints. There is a second balancing system between the right and left which keeps the pelvis and trunk in balance in a sagittal plane. From clinical observation of dystrophies and paralyses, we learn what individual muscles—like the gluteus maximus, the iliopsoas, the quadriceps femoris, the sacrospinalis—contribute to upright posture; from physiological experiments, we come to know how they are correlated. Through the combined work, we gain information about the means of locomotion. At this point, a new horizon of problems is opened up, the question of how a being equipped with such a motorium will experience the world—and himself in this world.

Human bipedal gait is a rhythmical movement where, in a sequence of steps, the whole weight of the body rests for a short time upon one leg only. The center of gravity has to be swung forward. It has to be brought from a never-stable equilibrium to a still less stable balance. Support will be denied to it for a moment until the leg brought forward prevents the threatening fall. Human gait is in fact a continuously arrested falling. Therefore, an unforeseen obstacle, a little unevenness of the ground, may precipitate a fall. Human gait is an expansive motion, performed in the expectation that the leg brought forward will ultimately find

solid ground. It is motion on credit. Confidence and timidity, elation and depression, stability and insecurity—all are expressed in gait.

Bipedal gait is in fact a balance alternating from one leg to the other, it permits variations in length, tempo, direction and accent. In a polka step, even the rhythmical sequence of right and left and right and left is interrupted and exchanged. The symmetry of rhythmically alternating locomotor reflexes is thereby broken. Steps, varied in many ways, can be united in a scheme, in a meter. It is not poetry alone that moves on "metrical feet" in an anapaestic, iambic or trochaic meter. In marching, in dancing, we perform a great variety of set patterns. "Per-forming" means that we follow a given form, that we are able to conduct ourselves in accordance with a scheme set beforehand, that we can use our limbs like instruments. Everyone who drives a car uses his legs and feet as tools. No one, however, outdoes the organist, who plays one pedal with his feet. Such an instrumental use of the limbs, obviously not limited to the arms and hands, demands a centralization of functions, demands a dominating hemisphere. For symmetrical alternating movements, bilateral, segmental and suprasegmental structures may suffice. Instrumental use depends on an interruption of symmetry, followed by higher integration.

A breakdown of this integration should result in kinetic apraxia of trunk and legs. There are indeed some cases recorded[3] that confirm this expectation. Their number is small. It probably would be greater if, as Sittig[4] pointed out, more attention were given to this symptom. Even then, it might escape observation for two reasons: first, paresis may cover the apraxia of the legs; and, second, gait and other symmetrical motions may still be found intact, when actions based on less symmetrical motions, like jumping and dancing, have already failed.[5]

III. Upright Posture and the Development of the Human Hand and Arm

a. *The Hand as a Sensory Organ and as a Tool*

In upright posture, the frontal extremities are no longer asked to support and carry the body. Relieved from former duties, they are free for new tasks. The anterior limb develops into the human arm and hand, which acquire multifarious new functions. For this development, upright posture is not only the genetic condition; it continues to dominate the functions of hand and arm.

Opposition of the thumb has been frequently mentioned as the most essential innovation. This statement is not completely true or completely correct. It is not correct because the hands of other than human primates are not entirely lacking in opposition of the thumb.* It is not completely true because one detail is singled out. With the same justification, or lack of it, the index finger has been honored as the specifically human acquisition. Those who say this think, of course, of its function of pointing. The index finger, however, could not point if the hand were not joined to the arm, and if the hand and arm were not related to upright posture.

In upright posture, the hand becomes an organ of active gnostic touching, the epicritic, discriminative instrument par excellence. As such, the hand now ranks with the eye and the ear. Anatomy which describes the eye and the ear as sensory organs, does not grant the same privilege-status to the hand. Anatomy dissects. It divides the hand into different layers and, "in a systematic order," describes the skin as a part of the integument and places the bones in the osteological, the muscles in the myological, the vessels in the cardiovascular systems. Not to call the hand an organ seems strange, in view of the fact that organ originally meant "tool." For Aristotle, the hand was "the tool of tools."[6] Anatomy has good reasons for its procedure; they are not, however, simply of a pragmatical order. The hand is a tool in relation to the living, experiencing being, to the man who stretches out his hand, touches and grasps. The anatomical description that attributes the tissues of the hand to different systems is an analysis of the dead body. The wholes which function as frames of reference differ widely.

The hand as an object of anatomy and the hand experienced as a part of my body—these two hands are not exactly the same object. The moment the anatomist takes up his scalpel he behaves, in regard to his own hand, like anyone who has no knowledge of anatomy. This change of attitude is not simply a relapse into naïve, primitive, pre-scientific behavior, unavoidable as a kind of abbreviating procedure. The anatomist, like everybody else, does not innervate the opponens, the interossei, the flexores digitorum. He does not use *the* hand but *his* hand. The possessive relation expressed by the words "my," "yours," "his," familiar and simple

*The proportions of their hands, however, especially the length of the metacarpus, prevent the formation of the finger-thumb forceps with its characteristic effect. See Revesz, Géza: *Die Menschliche Hand.* Karger. New York and Basle. 1944.

as it appears, contains, in fact, one of the most difficult problems for our understanding. It indicates the transition from physiology to psychology.*

Anatomy and physiology relate the body as a whole, and its parts, to neutral space—as the frame of reference. In experiencing, however, I experience my hand as an organ in relation to the world. The space that surrounds me is not a piece of neutral, extended manifold, determined by a Cartesian system of co-ordinates. Experienced space is action-space; it is my space of action. To it, I am related through my body, my limbs, my hands. The experience of the body as mine is the origin of possessive experience. All other connotations of possessive relations are derived from it. "Mine" is a distinction which has its place only in the experienced relation of myself and the world. Severed from this basic concept of experiencing, psychology will lose its specific theme and content.

Discussion is necessarily discursive. Analysis cannot avoid dividing into parts that which exists as a whole. When the dissection is completed, synthesis sometimes will be found difficult. It depends on the preceding methods of dividing. They may be so radical as to prevent the restitution of the whole. Adding part to part does not give a full reintegration of the whole. The parts have to be understood from the beginning as parts of that specific whole to which they belong. With attention focused on details, the human arm and hand appear as just one other variation in the development of the forelegs. For every part, one can find a homologue in other species. However, "homologue" means difference as well as similarity. If one gives due respect to both, and considers the arm in its entirety within the whole framework of upright posture, one can hardly deny that through the peculiar structure and function of arm and hand, a new relation between the human organism and the world has been established.

Only in relation to action-space, then, will the hand be understood as a sensory organ. It is true that the microscope does not reveal any tactile receivers specific for the skin of the hands. Meissner's corpuscles and Pacinian bodies are most numerous, but they are also found elsewhere. Their number alone would not

*Sherrington, in an introduction added to the ninth edition of his book, *The Integrative Action of the Nervous System*, emphasizes this gap between physiological and psychological approach and methods. Although he does not directly mention the problems posed by the possessive relation, he obviously is fully aware of them.

justify us in speaking of the hands as sensory organs. There is a better reason for doing so than the mere frequency of corpuscles. It is their distribution over the multiplex, mobile structure of the fingers, which, in their diversity, form a motor-sensoric unit. It is not the individual finger that, in feeling, recognizes, but all the fingers together, combined in a group. It is not the resting finger that feels, but the actively moved digits. Tactile impressions result from motion; nevertheless, we do not experience our motion so much as the quality of the things touched.[7] We feel the smoothness of a surface in letting our fingers glide over it.

While motion is indispensable for tactile impressions, the impression-guided fingers function as a working tool. This intimate interpenetration of sensorium and motorium is well expressed in words like "handling," "fingering," "thumbing," "groping," each of which combines the transitive and intransitive meanings of touching into one. The hand has, it seems, an insight of its own. In an ataxia of the legs, seeing may partially compensate for the sensory deficiencies. However, in a posterior root deficit of the hands, seeing is of little help, neither is it an aid in finger-agnosia and right-left disturbances.

The epicritic-discriminative functioning of the hands depends on still another condition. There is an inner distance necessary, a remoteness experienced in spite of the proximity of contact. A physician, in examining (palpating) a body, is expected to remain a neutral observer. He should be neither attracted nor disgusted by what he observes. His goal is not closeness, is not unification. His action resembles that of a winetaster, who takes a sip but spits it out again, avoiding swallowing and incorporation. The gnostic function of touching depends on the upright posture, which through its permanent distances produces a hiatus in the immediateness of contact.

"Experienced distance"[8] cannot be expressed in geometrical terms. It cannot be defined as the length of a straight line connecting two points in space. The geometrical consideration of distance is completely indifferent to time. The concept of a vector adding direction, and thereby time, to distance would be more adequate. Still, it lacks any conative character. Geometrical distance relates two points in space, both detached from the observer. Experienced distance is that which unfolds between an experiencing being and another person or object. It can be experienced

only by a being who aims at unification or separation. The modes of unification and separation vary. The spatial relation is only one among others. While experienced distance cannot, therefore, be expressed completely in spatial terms, it never lacks a spatial element. The space to which it is related, however, is not the conceptual homogenous space of mathematics but perceptual space, articulated in accordance with the specific corporeal organization of the experiencing person.

The role of distance is not limited to the hand as a sensory organ. It also dominates manual expression, communication, contact. Distance is ambivalent. Sometimes we want to preserve it; sometimes we want to eliminate it. The hand is instrumental in both cases. When our equilibrium is out of balance, is disturbed, the hand grasps for a hold. In darkness, it functions as scout and sentry, warning against collision and searching for contact. Sometimes no hold is found, no contact is made. Searching hands stretch into the void. It is as if emptiness were localized in our hands. Indeed, only the empty hand, like the begger's hand, can receive. Emptiness is the condition by which our hands can be filled. Only because of remoteness can it make contact.

We understand that the phobic patient feels somewhat more comfortable by carrying something in his hand, maybe no more than a cane, an umbrella, a bag. Does not each of us, if he alone is exposed to a group, e. g., as a speaker, an actor, like to put his hands on a chair, a desk, to fiddle with a pencil, with notes? Finally, we may even surprise ourselves with gesticulations which help less to clarify our thoughts than to fill emptiness and cover distance. In such situations, we are only one step ahead of the embarrassed child who pulls his fingers, as if in doing this he could fill his empty hands.

All the variations of the expression of emptiness are related to upright posture. They are, it seems, a universal language. When Darwin prepared his book on expression,[9] he sent questionnaires to missionaries abroad in order to find out the distribution of gestures familiar to us in the western world. He was interested, among other things, in the gesture of shrugging the shoulders, an expression of the incapacity to advise or to help. Here one again meets the empty hands. With the lifting of the shoulders, we also supinate our arms and demonstrate the empty hands. Shrugging the shoulders is an expression of fruitless endeavor.

Darwin learned through his questionnaires that this expression is indigenous everywhere, not imported from other civilizations, not formed by more or less local conventions and customs. Its universality proves it to be autochthonous with the human race. It is a universal and spontaneous gesture of man, wherever and whenever he, with upright posture, experiences a distance from things and fellow-men.

b. *Expansion of the Body Scheme by the Arms*

In upright posture, the arms expand the body scheme. The arm motion circumscribes a sphere which surrounds the body as territorial waters surround the shores of a country. This constitutes a section of space which, like the three-mile zone, belongs to the central body, yet not completely. It is not an indisputable property but a variable possession. My intervening space is a medium between me and the world. As such, it has the greatest social significance; it mediates between the other and me. In this space, which is not completely my own, I can meet the other as the other, join him as my partner, arm in arm, hand in hand, and yet leave him in his integrity. Through this space, I hold the other at arm's length or let him come toward me and receive him with open arms. It is the space of the linking of arms, of embracing,* but also of crossing the arms, a motion in which we keep distance, "circumwalling" ourselves in an attitude of defense, of fortification. It is also the space of handshaking. There are many nuances of handshaking, like warm and strong, or cool and hesitant. There can be spontaneous advance, or a no less spontaneous containment—as by the hand of the schizophrenic. In a farewell, the hands hold each other, press each other, move on together; they will not part. In a handshake sealing a bargain, the hands meet each other halfway in a mutual firm grasp in which the motion is arrested, expressing final agreement. Even the formalized gesture signifies social acceptance. We pass through a reception line, and the hands stretched out toward us tell us that we are welcome and received into the group.

The "three-mile zone" is not static. It is a borderland with fluctuating frontiers. It expands or shrinks. The body-scheme is not so much a concept or image which a person has of his own body as it is an ensemble of directions and demarcations—directions in

*The etymological root of "embrace" is "*brac*," as in "*brachium*," the Latin word for arm.

which we reach out toward the world, and demarcations which we encounter in contact with the world.[10] The body-scheme is also experienced, therefore, as an I-world relation. Corresponding to our conation, space itself loses its static character, opens endlessly before us, expands or represses us. The "de-pressed," with his head bent, his shoulders lowered, his arms fallen to his sides, with his slow, short steps, succumbs to the pressure which pushes him down. The Christian attitude of kneeling in prayer, of bending the head, of interlacing the hands, expresses humility, surrender to a higher power. The hands, withdrawn from the territorial space, joined at the midline in full symmetry—taking no sides—have renounced all action. The Moslem in his pious prostration goes to the extreme of fatalistic submission. The ancient Greek attitude of praying—upright, arms lifted and extended—opened and widened the body space in an enthusiastic gesture—"en-thus-iastic," indeed, because "*en-theos-iastic*" means "to receive the God, to be possessed by him."

> "Ah, but a man's reach should exceed his grasp,
> "Or what's a heaven for?"[11]

In pointing also, man's reach exceeds his grasp. Upright posture enables us to see things in their distance without any intention of incorporating them. In the totality of this panorama which unfolds in front of us, the pointing finger singles out one detail. The arm constitutes intervening space as a medium which separates and connects. The pointing arm, hand, and finger, share with the intervening space the dynamic functions of separating and connecting. The pointing hand directs the sight of another one to whom I show something; for pointing is a social gesture. I do not point for myself; I indicate something to someone else. To distant things, within the visible horizon, we are related by common experience. As observers, we are directed, although through different perspectives, to one and the same thing, to one and the same world. Distance creates new forms of communication.

The organization of action-space is deeply imprinted on the memory. Even after the loss of a limb, it persists in the "phantom." As long as there is a phantom, there is also intervening space through which the illusive arm stretches to a distant world, with the illusive hand in a terminal position. It is a common experience that the phantom arm shrinks, that the phantom hand

moves closer to the trunk; but it never disappears completely; it is preserved in its terminal position. The loss of the limb reduces the reach. It modifies the intervening space but does not annihilate it altogether.

The human arm owes its specific mobility to upright posture. Many factors contribute to its development and functions, but through all of them, upright posture is at work. First to be mentioned is the change in proportions of the sagittal and transverse diameter of the chest. In quadrupeds, the sagittal diameter is relatively long, the curvature of the ribs flattened, the motions of the humerus in the shoulder joint restricted, the flexibility of the elongated scapula limited. The humerus is kept in close contact with the trunk. The basic function of supporting the trunk prevails and this imprints one definite general mark on the structure of the shoulder girdle, in spite of all the variations to be found in different species. With upright posture, the transverse diameter is increased. This change, together with the corresponding sharp, angular curvature of the ribs, gives to the human thorax its characteristic shape, which in turn permits the development of the shoulder girdle into a kind of superstructure. This superstructure, which tailors like to emphasize, moves the root of the arm upward very high and markedly to the side. Far from supporting the human body, the arm and the shoulder are themselves supported, or better, held in position by muscle action, especially by that of the trapezius. The arm, separated from the trunk in its full length, can swing from its elevated hub with the widest angle of excursions in the greatest variety of motions.

The arm, not designed for one specific task, has acquired the potentiality of a wide range of performance. The principle of growing indetermination, one of Hughlings Jackson's criteria of functional evolution, is applicable to the comparative anatomy of the shoulder girdle.* One should not forget that the human arm

*The highest centers of the brain are, according to Jackson, the least organized, the most complex, and the most voluntary. Evolution is a passage from the most to the least organized, from the simple to the most complex, from the most automatic to the most voluntary (Jackson, H.: Selected Writings. Vol. 2, p. 46 ff. London. 1932.). The highest centers were not, or were little, accessible to direct experimentation in Jackson's time. Their functions were found by inference, reasoning backward from the observation of peripheral performances. The diverse functions of finger, hand, arm, and shoulder, would tell something about the organization of the corresponding highest centers. Complexity of the brain centers must have and does have its exact counterpart in the organization of the limbs.

neither supports the trunk nor has to hold up the body, a function still assigned to the forelimb of the tree-inhabiting primates. Small but still significant changes ensue, in the shape and position of scapula and clavicle, in the origin and insertion of the shoulder muscles, in the configuration of the acromio-clavicular and the sterno-clavicular joints. All this together provides for a maximum flexibility of the arm, aiding the display of the mechanisms of the scapulo-humeral articulation, where, because of the looseness of the capsule and the shallowness of the glenoid cavity, the humerus can move with great ease in all directions. In the hip joints, on the contrary, the head of the femur is deeply set in the socket of the acetabular cavity, the capsule is tight and reinforced by strong ligaments. While the primarily tectonic formation of the neck of the femur also somewhat extends the range of excursions, the emphasis in the hip is on stability, in the shoulder, on flexibility.

Language, obviously inspired by phenomenological observation, takes the arm as the protoype of the articulation of a limb and of its motions from the joint, for the root of the word "arm" is "$\sqrt{\text{ar}}$" with the meaning "to fit, to join," the same root from which the Greek "*ar-thros*" and the Latin "*ar-ticulatio*" stem.*

Within the totality of the new spatial dimensions acquired with upright posture, lateral space is perhaps the most important one. Through the mobility and action of arm and hand, lateral space becomes accessible and relevant for man. In this sector, most of the human crafts originated. Hammer and axe, scythe and sickle, the carpenter's saw, the weaver's shuttle, the potter's wheel, the mason's trowel, the painter's brush—they all relate to lateral space. This list could be extended *ad libitum* but probably would never come to an end, for lateral space is the matrix of primitive and sophisticated skills: of spinning and sewing, stirring and ironing, sowing and husking, soldering and welding, fiddling and golfing, batting and discus-throwing.

The crafts of peace are followed, accompanied, or preceded, by the techniques and weapons of war: club, sword, spear, bow, sling,

*In this paper, the writer has made frequent use of etymology, although it is not customary to introduce "linguistic evidence" in a biological discussion. However, because the history of a word represents the sedimentation of general psychological experience, it appears to the writer to be justified to refer to etymology as an auxiliary discipline.

boomerang, to mention some elemental forms only. Lateral space makes action at a distance possible, as David proved successfully to Goliath.* Superiority has not always belonged to the light forces. Even so, the importance of action at a distance, for which throwing is the primordial and perennial model, remains undiminished, and with it, the importance of lateral space.

The development of primitive and elaborate weapons makes one wonder whether "arm," the limb, and "arms," the weapon, may have the same etymological root. To this question, the linguists answer both "yes" and "no." Their answer is "no" because arms, arming, armament, are historically related to the Latin root "*arma*." The Romans' word for "arm," the limb, is "*brachium*," with another derivation and meaning. However, the root for "*arma*," weapon, is also "$\sqrt{ar.}$"

In considering the phenomenon of throwing, one cannot pass over the remarkable difference in the manner of throwing of the two sexes. It seems the manifestation of a biological, not an acquired, difference. Gesell[12] illustrates the familiar facts with some good photographs. They show little girls of five and six and two boys of the same age, throwing a ball. The girl of five does not make any use of lateral space. She does not stretch her arm sideward; she does not twist her trunk; she does not move her legs, which remain side by side. All she does in preparation for throwing is to lift her right arm forward to the horizontal and to bend the forearm backward in a pronate position. In the final motion, action is limited to the triceps and flexors of the hand. The excursion of her motion in the elbow joint does not exceed an angle of about 90°. The length of the lever from the fulcrum at the el-

*In this Biblical legend, a situation permanently repeating itself is told as a unique event. The Bible takes great pains to describe Goliath's heavy armor (I Sam. 17). It also tells that Saul offered David his own sword, a "helmet of brass," and a "coat of mail." However, David, not trained in the use of these weapons, laid them down. We may not go far wrong if we assume that the Bible, in a poetical condensation, describes as a duel what is really a conflict of two civilizations and of two types of military tactics. Goliath, the Philistine, belonged to a settled, seafaring nation, advanced in the techniques of metal forgery; David, described as a shepherd, belonged to a small nomadic tribe which invaded the Philistine territory from the interior. The conflict of the two co-existent types of military tactics is this: Goliath, heavily armed—the Philistine "Maginot Line"—almost immobilized by the weight of his armor—someone has to carry his shield before him—can move only directly forward to a close fight, while David, a kind of guerilla fighter, finds his advantage in mobility, in dodging, and in sudden attacks. This conflict between fortified defense and mobile attack is found in all military history up to our own time.

bow to the palm of the hand coincides with the length of the forearm. The ball is released without force, speed, or accurate aiming. It enters almost immediately the descending branch of a steep parabola. At the age of six, the girl tilts her right shoulder slightly, moves the left foot forward one small step, but shows no further progress. A boy of the same age, when preparing to throw, stretches his right arm sidewards and backwards, supinates the forearm,* twists, turns and bends his trunk, and moves his right foot backward. From this stance, he can support his throwing almost with the full strength of his total motorium. The excursion of his final motion reaches an angle of 180°. It moves around the left standing leg as its central axis. The radius of this semi-circle exceeds by far the full length of the arm. The ball leaves the hand with considerable acceleration; it moves toward its goal in a long flat curve.

As this difference appears in early childhood, it cannot result from the development of the female breast. While the legendary Amazons had the right breast removed to allow the use of bow and spear,** it seems certain that Nausicaa and all her companions threw a ball just like our Bettys, and Marys and Susans. How can we explain the difference? The little girl has no more difficulty in keeping her equilibrium than the boy. It is true that she is weaker in muscle power; but, therefore, one should expect her to compensate for this lack of strength with added preparatory excursion. Instead, we find her avoiding the turn into lateral space. Maybe the masculine way of throwing corresponds to masculine "eccentricity," while the feminine attitude reveals a deep-seated restraint and an inclination to circle around one's own center. The difference, then, would belong to the area of expression; it would not be a difference of strength and build but of general psychological attitude in relation to the world and to space.

Thus far, lateral space has been discussed as if it were a unit, a single whole. Indeed, in many motions, we lift our arms symmetrically in surrounding space. However, even simultaneous movements need not be actually symmetrical. They appear symmetrical; they are not so in their intention. The arms can be stretched, the hands can point, in opposite directions, to the right

*Supination reaches its fullest and freest excursion with the horizontal abduction of the arm.

**Amazon means "*a-mazos*," without breast.

and to the left, at the same time. It is this contrast of directions which divides, articulates, and organizes lateral space, producing heteronymous, unequal parts. These can be reunited into an ordered whole where one half dominates the other. Spatial syntax cannot deviate from the general principle of taxis, which always demands a leading part to which the others are subordinated. The pair, right-left, is the true embodiment of unity, unfolding itself into opposites, or, if we begin with the opposites, the unity of a contrasting manifold. Both aspects belong together. Practical discrimination between, and co-ordination of, right and left precede their conceptual distinction. The amazing cases of autotopagnosia demonstrates to what an extent the organization of the body-scheme, as a manifold of directions, dominates recognition. In the Gerstmann syndrome, we find (a) finger-agnosia, (b) agraphia, and (c) acalculia, besides a right-left disturbance. Searching for a common denominator, we may find it in the loss of the capacity to organize opposite directions into one or to break the unit into opposite directions:

(a) The fingers of the hand repeat, so to speak, the right-left scheme for one side. Thumb and little finger point in opposite directions. This maximum of divergency (the direct opposition) sets the pattern for the intermediary positions.

(b) Writing, the spatial construction of letters, presupposes the same capacity to differentiate a scheme of varying directions and to establish them simultaneously in advance. The shape of the printed letters "b" and "d" illustrates this well.

(c) Numbers follow the same principle. The "2," the model of all numbers, is a unit of 1 plus 1, which, while they become united, remain separate: 1 and 1, or 2. The figure "one" is unity, the "two" a unit. It should therefore not be surprising that a child learns cardinal numbers a considerable time after mastering the ordinals. While he knows the series of numerals and enumerates the fingers of one hand, he is not able to sum them up into one unit of 5.—When he has reached the age when he can conceive of cardinal numbers, he is usually able to distinguish right and left.

c. *Neurophysiological Considerations*

The highest skills are contingent upon the unification of opposites, the co-ordination of relatively independent parts which are not bound together by symmetry, homology or synergy. A good

violinist in a fast spiccato-run co-ordinates the motions of his left hand and fingers with those of his right shoulder and arm. He has to combine into one pattern the action of distal muscles on one side with that of proximal ones on the other. His movements should be speedy, accurate, well-timed in tempo and rhythm, with the appropriate accentuation and phrasing. Playing from parts, his motions will be directed by seeing, and controlled by hearing. Here, "seeing" does not mean simply response to optical stimuli but comprehension of symbols, which express pitch, time proportions, dynamics; "hearing" is not merely the reception of acoustical stimuli but the anticipation and perception of sounds ordered in the various aspects of music. The necessary flexibility and versatility of motion of the upper limbs could not be accomplished without the compensatory movements of the trunk and leg; in other words, postural adjustments are continually necessary, and—perhaps not yet satisfied with all this—we may have to allow our artist to tap the basic meter with his foot, in this way setting one, mechanical, repetitive motion against all the variations. Finally, a concert recital will vigorously activate the autonomic system.

A performance like this, which involves the functions of the whole body, depends on the capacities of the nervous system for differentiation and integration. The highest forms of integration are proportionate to the available divisions of labor. Lateral space, the development of handedness, has brought about the highest forms of integration. While considerable knowledge has been accumulated relative to the co-operating parts, the organization of the whole is still inadequately understood. Neuroanatomy and neurophysiology have rarely envisaged the diverse mechanisms related to lateral space as one functional unit. In a short survey, one may enumerate its major components, their connections and ways of interaction.

Clinical experience, more than experimental observation, points to the inferior parietal lobule (gyrus supramarginalis and angularis) as the highest level of integration concerned here. It has been found involved in cases of right-left disturbances, finger-agnosia, agraphia, alexia, and constructive apraxia. As the highest level of co-ordination, it should be supplied with tactile impulses, both exteroceptive and proprioceptive, with acoustical and optical stimuli. If neighborhood relations mean anything, the in-

ferior parietal lobule may well be looked upon as a center, surrounded by and connected with the somesthetic areas of the postcentral gyrus, the optical areas of the occipital lobe, the receptive acoustical areas of the temporal lobe. It is not to be expected that any motor activity would start from here but that motions would be integrated, directed, and controlled from this area. Neighborhood relations also indicate that the inferior parietal lobule receives impulses from Brodmann's area 22, the acoustical adversive field, and from area 19, the occipital eye field, both areas serving adaptation of the body to events in lateral space. The superior parietal gyrus, Brodmann's area 7, has not yet been mentioned. Foerster[13] believes it to be an extrapyramidal field, more important than precentral area 6 with its subdivisions. Like areas 19 and 22, area 7 is also supposed to be in the service of motions related to lateral space. It closes the circle of the areas surrounding the inferior parietal lobule, which, therefore, is in close relation to an extrapyramidal field, initiating synergistic motions, and to the central gyri with their specified focal organization. If areas 39 and 40 function as a field of integration, bilateral representation of sensorium and motorium is indispensable. Commissural and association fibers, which, it seems, provide the main connections, could well serve this purpose. With the commissural connections of corresponding areas, a time differential may become effective through which the minor hemisphere may be subordinated to the dominant one.

Action in lateral space is to a great extent directed and controlled by vision. The oculomotor apparatus on all its levels from the periphery to the cortical eye fields, no less than the central optical pathways, is intimately related to motion in lateral space. The homonymous division of visual fields and retina which cuts through the macula is a most appropriate device for the control of lateral-space, perhaps even more so than for binocular frontal vision. In lower vertebrates, all retinal fibers cross. The reason may be, as Ramon y Cajal assumed, that in the absence of crossing, the optical projection would be completely incongruent with the visible objects. The new acquisition in mammals with overlapping visual fields is that the temporal fibers remain uncrossed. The twofold cortical representation of lateral eye movements demonstrates their great importance. The frontal eye field probably regulates

voluntary movements of the eyes; the occipital field controls lateral gaze induced by the sight of moving objects.

In the brain stem, the cortical nuclear fibers reach the pontine center of conjugated lateral gaze, which is also influenced by acoustical and vestibular stimuli. The final section of this pathway has not yet been fully established. The cortico-nuclear connections add conscious and voluntary control to the mesencephalic automatic regulations of gaze and posture. In this group, the Moro reflex has special significance for the present problem. The functions of the superior colliculi seem limited, in man, to the control of vertical movements; while the wide cortical eye fields chiefly direct rotation of the eyes to the contralateral side. Some tracts descending from the mid-brain and ending in the cervical cord integrate the functions of the accessorius, of neck and shoulder muscles, into the complex sensory motor system in control of lateral space. On the most peripheral level, the plexus formation seems to serve the co-ordination of proximal and distal muscles.

IV. Upright Posture and the Formation of the Human Head

Upright posture has lifted eye and ear from the ground. In the family of senses, smell has lost the right of the first-born. Seeing and hearing have assumed dominion. Now, these really function as senses of distance. In every species, eye and ear respond to stimuli from remote objects, but the interest of animals is limited to the proximate. Their attention is caught by that which is within the confines of reaching or approaching. The relation of sight and bite distinguishes the human face from those of lower animals. Animal jaws, snoot, trunk, beak—all of them organs acting in the direct contact of grasping and gripping—are placed in the "visor-line" of the eyes. With upright posture, with the development of the arm, the mouth is no longer needed for catching and carrying, for attacking and defending. It sinks down from the "visor-line" of the eyes, which now can be turned directly in a piercing, open look toward distant things and rest fully upon them, viewing them with the detached interest of wondering. Bite has become subordinated to sight.

Language expresses this relation in signifying the whole, the face, through its dominating part, the eyes, as in the English and French word "visage," in the German "*gesicht*," and in the Greek "*prosopon*." While the origin of the Latin word "*facies*"—and therefore, also, of the English noun "face"—is uncertain, the verb

"to face" re-assumes, in a remarkable twist, the original phenomenological meaning: to look at things straight ahead and to withstand their thrust. Eyes that lead jaws and fangs to the prey are always charmed and spellbound by nearness. To eyes looking straight forward, to the gaze of upright posture, things reveal themselves in their own nature. Sight penetrates depth; sight becomes insight.

Animals move in the direction of their digestive axis. Their bodies are expanded between mouth and anus as between an entrance and an exit, a beginning and an ending. The spatial orientation of the human body is different throughout. The mouth is still an inlet, but no longer a beginning, the anus an outlet, but no longer the tail end. Man in upright posture, his feet on the ground, his head uplifted, does not move in the line of his digestive axis; he moves in the direction of his vision. He is surrounded by a world-panorama, by a space divided into world-regions joined together in the totality of the universe. Around him, the horizons retreat in an evergrowing radius. Galaxy and diluvium, the infinite and the eternal, enter into the orbit of human interests.

The transformation of the animal jaws into the human mouth is an extensive remodeling: mandible, maxilla, teeth, are not the only parts recast. The mark of the jaws is brute force. The muscles which close the jaws, especially the masseter, are built for simple, powerful motions. Huge ridges and crests, which provide the chewing muscles with an origin appropriate to the development of power, encompass the skull of the gorilla. They disappear when the jaws are transformed into the mouth. The removal of these pinnacles permits the increase of the brain case, while at the same time the reduction of the mighty chewing muscles permits the development of the subtle mimic and phonetic muscles.

The transformation of jaws into the mouth is a prerequisite for the development of language, but only one of them. There are many other factors involved. In upright posture, the ear is no longer limited to the perception of noises—rustling, crackling, hissing, bellowing, roaring—as indicators of actual events, like warnings, threats, lures. The external ear loses its mobility. While the ear muscles are preserved, their function of adapting the ear to the actuality ceases. Detached from actuality, the ear can comprehend sounds in the sounds' own shape, in their musical or phonetic pattern. This capacity to separate the acoustical gestalt

from the acoustical material makes it possible to produce purposely, and to "re-produce" intentionally, sounds articulated according to a preconceived scheme.

Just as the speaker produces his words, articulated sounds, which function as symbols, as carriers of meanings, these should be received and understood by the listener in exactly the same way. The articulated sound, the phoneme, has an obligatory shape. The phoneme itself is a universal. The relation which connects speech and speaker can be held in abeyance that speech as such can be abstracted, written down, preserved and repeated. Speech, while connecting speaker and listener, keeps them at the same time at a distance. The most intimate conversation is bound to common, strict rules of phonetics, grammar and intended meanings. A spontaneous cry can never be wrong. The pronunciation of a word, or the production of the phoneme, is either right or wrong. The virtuosity acquired by the average person in expressing himself personally and individually in the general medium of language hides the true character of linguistic communication. It is rediscovered by reflection when disturbances of any kind interfere with the easy and prompt use of language, or when the immediateness of contact does not tolerate linguistic distance and the word dies in an angry cry, in tender babble, or in gloomy silence.

In conversation, we talk with one another about something. Conversation, therefore, demands distance in three directions: from the acoustical signs so that the phoneme can be perceived in its pure form; from things, so that they can be the object of common discourse; from the other person, so that speech can mediate between the speaker and listener. Upright posture produces such distances. It lifts us from the ground, puts us opposite to things, and confronts us with each other.

The sensory organs cannot change without a corresponding change in the central nervous system. No part could be altered alone. With upright posture, there is a transformation of sensorium and motorium, of periphery and center, of form and function. While upright posture permits the formation of the human skull,* and thereby of the human brain, the maintenance of upright posture demands the development of the human nervous system. Who can say what comes first and what comes last, what is cause and what is effect? All these alterations are related to upright posture as their basic theme. "In man, everything converges into the

*Note the introduction to the present paper, paragraphs 4 and 5.

form which he has now. In his history, everything is understandable through it, nothing without it."[14]

The phenomenon of upright posture should not be neglected in favor of the lying man, or the man on the couch. To do this, is to ignore facts which are obvious and undebatable, accessible without labyrinthine detours of interpretation, facts which exact consideration and permit proof and demonstration. It is true that sleep and rest, lying down and lying with someone, are essential functions; it is no less true that man is built for upright posture and gait, that upright posture, which is as original as any drive, determines his mode of being-in-the-world.

"The upright gait of man is the only natural one to him, nay, it is the organization for every performance of his species and his distinguishing character."[15] Human physique reveals human nature.

V. Summary

The wound cut by the Cartesian dichotomy of mind and body is covered over, but not yet healed, by mere reference to the mind-body unity. This term is useful only if it is filled with definite meaning and classified in its pre-suppositions as well as in its consequences. The idea of a mind-body unit demands first of all a revision of those traditional concepts of psychology which are shaped in accordance with a theory of a mind-body dichotomy. Experience can no longer be interpreted as a train, accumulation, or integration, of sensations, percepts, thoughts, ideas, volitions, occurring in the soul, the mind, the consciousness, or the unconscious for that matter. In experiencing, man finds himself always within the world, directed toward it, acting and suffering.

This study discusses the mind-body relation from one well-defined point of view. In analyzing upright posture, it points out in detail the correspondence between human physique and the basic traits of human experience and behavior. It also sets forth how some expressive attitudes of man are related to his basic orientation in the world as an upright creature.

Upright posture, which dominates human existence in its unity, makes us see that no right exists for claiming any kind of priority for the drives. The "Rationale" is as genuine a part of human nature as the "Animal."

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PSYCHOSIS AND BRONCHIAL ASTHMA

BY JOSEPH C. SABBATH, M. D., AND RALPH A. LUCE, JR., M. D.

The occurrence of bronchial asthma in the mentally-ill patient, its fluctuation with the disease process and its incidence in the various diagnostic categories have been reported by many authors, especially during the past 15 years. With increased interest in psychosomatic conditions such as asthma, the need for more detailed study of asthmatic patients who develop serious psychiatric disorders has become apparent. Both the descriptive relationships and the theoretical implications need elucidation. The purpose of this paper is to discuss the pertinent literature and to report observations on 32 psychotic patients with bronchial asthma studied at Worcester (Mass.) State Hospital. A possible theoretical explanation for the variable relationships between asthma and psychosis will also be described.

Method

Thirty-two patients were selected on the basis of a history of bronchial asthma. Criteria for asthmatic diagnosis included repeated episodes of difficult respiration associated with wheezing, and the presence of dry or sibilant rales, not associated with signs of cardiac decompensation. In most cases symptomatic relief followed the administration of such drugs as ephedrine, aminophylline or adrenalin.

The psychiatric diagnoses in these cases were: 18 schizophrenic psychoses (nine paranoid, one catatonic, one hebephrenic, and seven other types); six involutional psychoses (one melancholiac, two paranoid, and three other types); three paranoid conditions; two manic-depressive psychoses, manic type; and one of each of the following categories, psychosis with psychopathic personality; psychosis with mental deficiency, and general paresis.

The data were organized under the headings of diagnosis, age on admission, age at onset of mental illness, age at onset of asthma; precipitating event of asthma; precipitating factor of mental illness; asthma co-existent, asthma antagonistic or without definite relationship to the psychosis; history of other allergic manifestations, history of pulmonary disease, family history of asthma and family history of mental disease. The patient's age relationship to siblings was also noted. The information was ob-

tained by means of personal interview, physical examination, observation of hospital course (where possible), clinical records, and social history. A few patients were not available for such complete evaluation.

Observations

Of the 32 cases studied, the average age on present admission was 41.8 years and that of onset of mental illness, 36.9 years. In general, the paranoid reaction types showed the more insidious onsets with the longer durations of pre-psychotic symptoms.

Seven patients had histories of other allergic manifestations. Of these, three had eczema, one neurodermatitis, one chronic rhinitis, one hay fever, and one angioneurotic edema. In all except the patient with hay fever these conditions were observed during their hospital courses.

Sixteen of the 32 patients had histories of previous pulmonary disease, including 13 cases of pneumonia, two of bronchitis and four of whooping cough. Three of the patients who had had whooping cough also had histories of pneumonia. In the rest, no significant histories of previous pulmonary disease were obtained.

Eight patients had family histories of asthma and seven, family histories of mental disease.

The importance of sibling relationship is not known; but it was noted that 12 patients were the oldest children of their families, five the youngest, two the only children, one a twin, and the remainder in no particular order.

The average age at onset of asthma was 31.1 years. The first asthmatic attack in 10 patients was immediately preceded by an acute respiratory infection. Seven patients with histories of preceding pulmonary disease first developed asthma during a period of severe emotional stress, such as loss of a loved one or the menopause. In two cases asthma first occurred postoperatively. Another patient developed asthma following exposure to flour dust in a bakery. In the remaining 12 patients, no definite precipitating factors were found. Thus it appears that in some cases either psychological or organic factors may be operative in precipitating the original asthmatic attack.

In a few cases a specific event could be linked to the onset of the mental illness such as the loss of a loved one, an unfortunate mar-

riage or a homosexual experience. However, in most cases, especially in the paranoid psychoses, no specific event could be detected. The authors believe that both chronicity of emotional stress, as well as intensity of a specific emotional trauma, may be operative in precipitating a psychotic reaction.

In the temporal relationship between the asthma and the psychosis, two main variations were observed. The asthma co-existed with the psychosis in 19 patients, was antagonistic in 11 cases, and appeared without definite relationship in the remaining two cases. By co-existent is meant the presence of the asthma prior to psychosis, during the psychosis, and during remissions when they occurred. In a number of these cases an increase in mental symptoms was accompanied by an increase in the severity of the asthma.

By antagonistic is meant the presence of asthmatic symptoms prior to psychosis, their absence during overt psychosis, and their reappearance during remission. In several cases of status asthmaticus, there was an abrupt onset of psychosis, with sudden cessation of asthmatic symptoms.

Of the 19 patients in whom the asthma co-existed, nine were diagnosed paranoid schizophrenia; three, paranoid condition; two, involutional psychosis, paranoid type; two, schizophrenia, other types; one, psychosis with mental deficiency; one, psychosis with psychopathic personality; and one, general paresis.

Of the 11 patients in whom the asthma was antagonistic, four were diagnosed schizophrenia, other types; one, hebephrenic schizophrenia; one, catatonic schizophrenia; three, involutional psychosis, other types; one, involutional psychosis, melancholia; and one, manic-depressive psychosis, manic type.

Of the two patients in whom the asthma showed no definite relationship to the psychosis, one was diagnosed schizophrenia, other types, and the other manic-depressive psychosis, manic type. In the schizophrenic patient, there were annual episodes of asthma requiring hospitalization some time before the onset of the mental illness but no asthmatic symptoms immediately prior to psychosis or during the hospital course. In the manic patient, asthmatic symptoms were present during one attack of the psychosis but absent in other episodes. His asthmatic symptoms seemed always to be precipitated by upper respiratory infections.

Review of the Literature

In the literature, there is no consistent agreement about the relationship between asthma and psychosis. Several authors believe that an antagonism exists. Thus Gillespie[1] mentions that Kesselbaum[2] had 10 cases of dementia præcox in which the asthma ceased at the onset of severe mental symptoms. In St. Saxl's case[3, 4] of a manic-depressive psychosis, the asthma subsided prior to an acute exacerbation of the psychosis, only to return suddenly with its subsidence. In Oberndorf's case[5] the asthmatic attacks were substituted for by emotional outbursts "quite like manic attacks." Kerman[6] reports two cases, one a schizo-affective psychosis and the other a manic-depressive, depressed psychosis. In both cases, the asthmatic symptoms disappeared during the courses of the acute depressions and recurred after electric shock therapy when there were remissions of the depressions.

Vaughan[7] believes that once a psychoneurotic becomes psychotic, allergic symptoms disappear. MacInnes[8] states that in three of five cases of asthma observed by her in mental hospitals, there was no history of attacks during the mental illness, but that upon a return to "a mental balance" there were definite manifestations of allergic conditions. Funkenstein[9] describes six patients, four of whom had psychotic episodes and the other two obsessive-compulsive and anxiety neuroses respectively. He states that all patients were free of asthma while mentally ill and, in the three cases in which the psychoses cleared, there was return of the asthma.

Other authors describe no such antagonism between asthma and psychosis. Thus Appel[10] describes a case of a "schizoid personality with paranoid trends," in whom clear-cut paranoid features occurred at the same time as asthmatic attacks.

In 10 cases cited by Leavitt[11] no relationship between the asthma and the course of the psychosis was seen. Diagnostically his group consisted of six dementia præcox cases, three manic-depressives, and one of paranoia and paranoid condition. He found "that patients with bronchial asthma who classified in the dementia præcox group had not regressed to the level where hallucinations, untidiness in toilet habits or convulsions appeared. All were oriented and easily 'contacted.'"

Reichmann[12] believes that manic-depressive swings are of particular frequency in asthmatics. Hansen[13] feels that "asthmatic attacks predominate in attacks of depression." In the present

writers' series, there were six involutional psychoses, four of which showed depressive symptoms, but no cases of manic-depressive, depressed, psychosis.

Ross, et al.,[14] in their study of the association of certain vegetative disturbances with the various psychoses, conclude that there is no statistically significant association between a particular type of psychosis and bronchial asthma.

Some authors who believe asthma to be antagonistic to psychosis have postulated theories to explain this phenomenon. St. Saxl[3] assumes that "the psychosis through a change in the ion concentration of blood produced a change in the vegetative milieu which made impossible the persistence of asthma. With the subsidence of the psychosis and the re-establishment of the previous ion concentrations in the blood it became possible for the asthma to reappear." According to Funkenstein,[9] who studied the autonomic nervous system in six patients with mental illness and histories of asthma, a marked shift in the autonomic patterns was found in patients during psychoses, with freedom from asthma, as compared with their nonpsychotic phases when they were having asthma. He feels that the psychologic and physiologic changes are two aspects of the patient's reaction to stress.

Many psychoanalysts[4] believe that in manic-depressive patients the asthma and the psychoses are different expressions—one somatic, the other psychic, of the same underlying psychic constellation.

Discussion of Case Material

The writers' 32 cases were studied individually to determine what factors might be of significance in explaining the presence or absence of asthma during psychosis. In general those patients who retained their asthma showed less break with reality and more nearly intact personalities.

Whether a patient retains or loses his asthma appears to be directly related to the extent of his break with reality and, hence, to the depth or level of psychosis. According to one theory,[15] during the course of most acute psychoses there are two processes occurring more or less simultaneously. These are regression and a homeostatic phenomenon termed restitution. Psychotic symptoms are classified, therefore, as either regressive or restitutive. Realizing that a quantitative estimation of the degree of regression or

of restitution is impossible, the writers have, nevertheless, attempted to make an approximate evaluation of these factors by arbitrarily subdividing psychotic phenomena into "Levels 1, 2 and 3." The terms "level" or "depth" of psychosis, or "degree" of psychotic involvement will be used with the understanding that both regressive and restitutive processes are probably responsible for the symptomatology at any particular time.

The first and highest level, Level 1, of psychotic involvement would be seen, for example, in those paranoid patients with well-systematized delusions and appropriate disturbances of both affect and mood. Other mild schizophrenics, with ideas of reference, feelings of depersonalization, poorly-systematized delusions, moderate disturbances of affect and mood would be included on this level, as would the less severe manic-depressive patients. On this level, the break with reality is only partial, and large areas of the personality remain uninvolved in the psychotic process. The asthma is observed to co-exist in patients showing this degree of involvement.

On the second postulated level, there would be a more marked break with reality, with hallucinations as well as delusions. Mood and affect disturbances would be more severe as seen in some involutional depressions and certain manic-depressive psychoses. Disorders of awareness and attention would interfere with any adequate work adjustment or interpersonal relationship. However, a certain degree of reality contact would be maintained. At this level, the antagonism of the asthma would become apparent so that, during psychosis, these patients would lose their asthmatic symptoms.

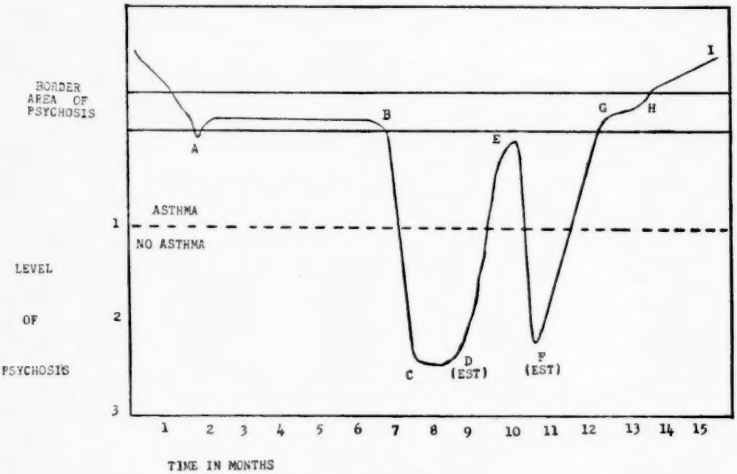
On the third level there would be sensorial defects with disorientation and confusion as well as hallucinations, delusions of a more bizarre type, perhaps associated with severe excitements. Also on this level, formal thought disorders in schizophrenics would be evident with obvious disorganization of behavior and the most severe disturbances of affect. More pronounced symptoms of withdrawal such as mutism or marked catatonia also occur at this level. No asthmatic symptoms would be present.

It is to be understood that there is some overlapping of these postulated levels, and a patient may be at different levels during various phases of his psychosis. From the writers' own observations it appears that asthmatic symptoms remain throughout the

first psychotic level but disappear as the second level is approached.

To illustrate the relationship between asthma and the degree of psychotic involvement, three cases will be described in detail and illustrated by graphs of the history of the mental illness.

Case 1: Y. B. Diagnosis: involutional psychosis, other types. This 57-year-old, white, married woman was first admitted to Worcester State Hospital on July 1, 1950 with a seven-month history of continuous severe asthma, accompanied by apathy, depression and numerous hypochondriacal complaints. Her asthma had developed eight years previously during the menopause when her son went overseas. There was a transient psychotic episode, six months before hospitalization, with vague hallucinatory experiences (Point "A" on figure, Case 1), of an indefinite nature. A



Case 1: Y. B.

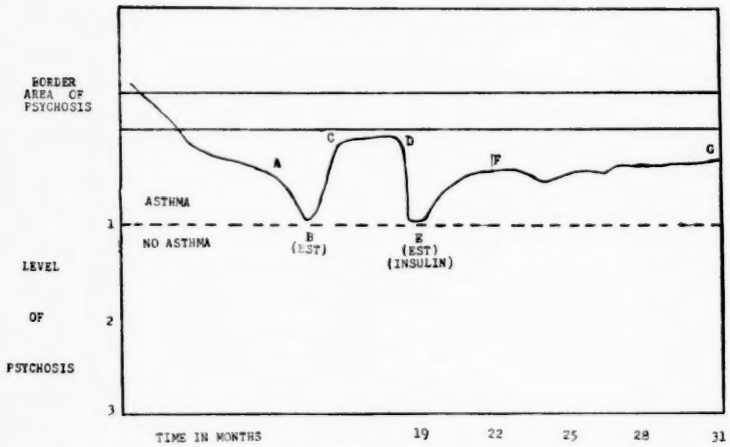
week before her entry to Worcester State Hospital, the patient attempted suicide by an overdose of chloral hydrate. She was admitted to a general hospital in status asthmaticus. While there, she began complaining of smelling foul odors, and had vague, visual hallucinations which she described as "seeing smoke." She also complained of nightmares and thought that her son, his wife and children had been injured or killed. Her asthma ceased

abruptly ("B" on figure), and she was admitted to the state hospital, disoriented, confused and actively hallucinating in the visual and auditory spheres ("C"). Throughout the observation period of approximately 40 days, the patient exhibited marked depression associated with ideas of reference, delusions, paranoid ideas and auditory hallucinations. She believed she smelled of feces and that her son and his children were "upstairs" being tortured and killed.

Electric shock therapy was instituted ("D"), and, following the nineteenth treatment, the patient showed an almost complete disappearance of psychotic symptoms with recurrence of wheezing and asthmatic breathing ("E"). Within two weeks, she had a recurrence of psychotic symptoms with disappearance of asthma ("F"). Electric shock therapy was then instituted on a weekly basis. She gradually improved ("G") and within two and a half months was discharged from the hospital ("H") with no evidence of psychosis and without asthma. However, one week later when reporting from visit the patient had moderately severe asthma ("I").

In this patient, with prodromal symptoms of psychosis of six months duration, there was an abrupt cessation of asthma followed by the acute onset of psychotic symptoms, as shown by an almost complete break with reality, hallucinations and delusions. The degree of involvement would correspond to Level 3 in the descriptive category. Following electric shock therapy there was a restitution to a borderline level of brief duration, accompanied by mild asthmatic symptoms. Shortly thereafter, there was a return to the previous psychotic level. Restitution to a non-psychotic level occurred during weekly shock treatments. Improvement continued, and was maintained with a recurrence of asthmatic symptoms.

Case 2: H. B. Diagnosis: paranoid schizophrenia. This 30-year-old, white, divorced woman was first admitted to Worcester State Hospital on April 11, 1950 with a two-year history of disturbed behavior consisting of ideas that men were following her, that her food was poisoned, and that James Stewart was her divorced husband. She would smile inappropriately and threaten to kill her family and herself. This behavior led to her hospitalization in a sanatorium ("A") nine months before her present entry where she received an unreported number of electric shock treat-



Case 2: H. B.

ments ("B"). Following this she made a borderline adjustment under the care of a private psychiatrist ("C" to "D"). The asthma, which had developed shortly after her marriage at the age of 20, continued during this period. The patient had also had eczema since infancy, and this persisted throughout the present illness. One week before entry at Worcester, she was rehospitalized ("D") at the sanatorium following a gradual exacerbation of her symptoms. She was abusive and assaultive toward her brother, bit one of the hospital attendants, spat on the doctor, and complained of people putting arsenic in her food. She was then transferred to the state hospital.

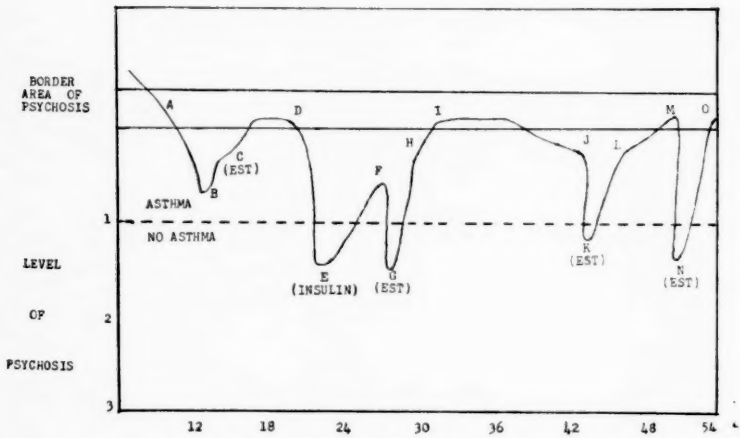
During her observation period at Worcester, she was sarcastic and demanding. She attempted to "bargain" with the doctors and exhibited prominent paranoid trends such as believing that she was in an "illegal hospital." She also had numerous hypochondriacal complaints and frequent asthmatic episodes which increased in severity when she was started on insulin and electric shock therapy ("E"). Because of her resistiveness, assaultiveness and the increased severity of the asthma, attempts at physical therapy were discontinued after she had received nine EST treatments. Without further therapy the patient improved moderately, kept to herself, and was hostile, demanding and antagonistic only when approached by a doctor or other hospital official ("F").

She continues to the present ("G") at about the same level without a structured delusional system but with pronounced paranoid trends. Her asthma occurs periodically.

In this patient, with a two-year history of poor adjustment, there was never a complete break with reality during her acute episodes. She was at all times well oriented; and delusions, though present, were not systematized. There was no evidence of hallucinations. Her asthma has persisted periodically throughout her psychosis, with exacerbation of asthmatic symptoms during the more acutely disturbed phases. It is postulated that, since psychotic involvement never developed beyond the first level, the asthma was never lost. To date, there has not been restitution to a nonpsychotic level.

Case 3: C. E. Diagnosis: schizophrenia, other types. This 38-year-old, white, single man was first admitted to Worcester State Hospital on August 27, 1945 ("A" to "B" on chart) in a state of agitation and acute asthma. His complaints in his own words were "asthma, weakness of mind, toxin in the blood." He was well oriented, showed a push of speech, being obsessed with the delusion that since he had stopped raising phlegm lately his blood was absorbing toxin which was harming his muscle and brain cells. Asthma had been present since the age of five. In contrast to the other two patients, there was a history of recurrent mental disturbances, starting at the age of 17 and requiring hospitalization in 1924, 1926 and 1931 in other hospitals. Varying diagnoses were made, including psychoneurosis, neurasthenia; dementia præcox; and manic-depressive psychosis. Overproductivity of speech, poorly systematized delusions and hypochondriacal complaints were present on each admission.

The symptoms leading to the present admission were of about a year in duration and included pain around the heart on exertion, easy fatiguability, seclusiveness, philosophical preoccupations and an increasing prominence of asthmatic symptoms. Five months before hospital entry, the asthma became particularly severe, and the patient was unable to raise the phlegm. Following this, the symptom of weakness progressed to the point, in the weeks immediately before entry, where the patient had to be fed once or twice a day and did not leave the house except to see a doctor. During hospitalization, the asthma improved moderately but the psychotic symptoms persisted until nine electric shock treatments were ad-



Case 3: C. E.

ministered three months after entry ("C"). He was placed on visit, had several asthmatic episodes and was returned to the hospital in a camisole after six months ("D"), because of threatening, unpredictable behavior ("E"). There were no asthmatic symptoms on readmission.

The examining physician felt that the clinical picture showed more evidence of a schizophrenic process than previously. In addition to the delusion about phlegm, the mental content revealed world-reconstruction fantasies, including the idea that by sacrifice he could attain a spiritual existence and alleviate the suffering of the world. The patient also believed he could bring his father back to life. He received insulin coma therapy ("E") with slight improvement, and asthmatic symptoms recurred ("F"). Shortly thereafter, there was an exacerbation of psychotic symptoms with disappearance of the asthma. Following electric shock therapy ("G"), the patient was markedly improved but suffered a return of his asthma ("H"). He made a borderline adjustment on visit for a year ("I" to "J") and then was rehospitalized in an acutely disturbed state ("K"). Fluctuations in the disease process continued ("L" to "O"), and the patient was transferred to a private mental hospital on July 24, 1948 where subsequent follow-up was not possible.

In the first psychotic break of the present illness, when the patient was admitted in status asthmaticus, psychotic symptoms

were minimal. In later psychotic episodes, the degree of involvement was greater, and these were not accompanied by asthmatic symptoms. When restitution occurred following the shock therapies, asthmatic symptoms recurred. This case shows how the presence or absence of asthmatic symptoms is related to the degree of psychotic involvement. In the other two cases one or the other relationship was maintained, while in this patient both types were seen in different episodes.

Discussion

From the literature it is apparent that confusion exists as to whether asthma is co-existent with, or antagonistic to, psychosis. The writers' observations indicate that varying relationships exist, depending on the degree of psychotic involvement. Also of importance, is the nature of the psychotic reaction, which is related to the patient's character structure, his ego defenses, and his previous life experiences.

The importance of previous life experience in establishing asthma as a psychosomatic symptom is seen in Case 3, that of a patient who developed asthma following whooping cough at the age of four and whose asthma has been prominent since then during periods of emotional stress. This is in keeping with the theory of Deutsch,[16] who believes that a transient disturbance of an organic nature coinciding with a need for the expression of instinctual drives in early life, may lead to a psychosomatic condition such as asthma.

It was noted that asthmatic symptoms co-existed with the psychosis particularly in the paranoid reaction types. This appeared to be related to the fact that a large part of the personality was not involved in the psychotic process. The often well-limited nature of the paranoid psychosis has been clearly shown in Freud's famed Schreber case.[17] This is in contrast to other psychoses, where there is usually greater involvement of the personality in the disease process, with a resulting loss of asthmatic symptoms. It appears that the asthmatic symptoms are utilized by the uninvolved part of the personality.

Thus whether a patient retains or loses his asthmatic symptoms during psychosis seems to be related directly to the amount of uninvolved personality and inversely to the degree of psychotic involvement.

According to psychoanalytic theory,[15] psychic energy (libido) is distributed among the external world, the body and the psyche. In mental illness psychic energy is first withdrawn from the external world and intensifies the attachment (cathexis) to predisposed bodily organs. Thus it is seen that many pre-psychotic patients develop multiple somatic complaints, attaining hypochondriacal proportions, preceding their psychotic breaks. In patients with psychosomatic diseases such as asthma, where an organ system is already emotionally involved (libidinized), there is usually an exacerbation of symptoms of such organs prior to psychosis. This may reach the extreme of status asthmaticus and be followed by an abrupt psychotic break, with cessation of asthmatic symptoms. Apparently the psychic energy (libido) has been withdrawn into the psyche and a state of "narcissistic regression" prevails.

That some patients develop status asthmaticus prior to psychosis and others do not may be related to several factors, one of which is probably the relative importance of the asthma as a psychosomatic symptom. Other factors difficult to evaluate but of importance include constitutional predispositions, allergic sensitivities, and pulmonary disease.

It is apparent from our study that many problems remain to be solved. Bronchial asthma itself is a complex of symptoms, e. g., respiratory difficulty, coughing, expectoration, etc.,[18] each of which may have individual meaning for the patient. This is illustrated in Case 3, where the presence or absence of phlegm was of particular importance to the patient. A knowledge of the psychological meaning of the asthmatic symptoms as well as of their relationship to other symptoms and to defenses in each patient would undoubtedly clarify many unanswered questions. Why certain patients develop status asthmaticus prior to psychosis and others do not, needs further elucidation. No satisfactory explanation can be offered as to why certain paranoid patients show increased asthmatic symptoms when they are more mentally disturbed. Another interesting problem is posed by the rare patient who seems to show no particular relationship between his asthma and his psychosis. Research into the relationships of other psychosomatic illnesses to psychosis might further the understanding of the various problems involved. It is believed that only by the intensive study of the individual patient can more satisfactory explanations be sought.

Summary and Conclusions

Observations on 32 cases of bronchial asthma and psychosis were studied with regard to the occurrence of asthmatic symptoms in various stages of the psychotic process. Three cases were presented in detail, illustrating the two most common relationships between asthmatic symptoms and psychotic episodes. These were (a) co-existence, by which is meant the presence of asthmatic symptoms prior to psychosis, during the psychosis and during remissions when they occur; and (b) antagonism, by which is meant the presence of asthmatic symptoms prior to psychosis, their absence during the overt psychosis, and their reappearance during remission. Both relationships were occasionally observed in the same patient during different psychotic episodes, depending on the level of psychosis.

The following conclusions resulted from the study:

1. There appeared to be no selective distribution of asthma among psychiatric diagnostic categories.

2. The asthma was co-existent in all paranoid reaction types of psychosis.

3. Whether a patient retained or lost his asthmatic symptoms in psychosis appeared to be related directly to the amount of the personality uninvolved in the psychotic process and related inversely to the level of psychosis.

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PATTERNS OF RESEARCH IN MENTAL HYGIENE*

BY BENJAMIN PASAMANICK, M. D.

This attempt to delineate briefly the present status of psychiatric knowledge and research in its scientific historical context, and to outline some profitable paths of research in mental hygiene, is probably illustrative of the conceit contained within psychiatry. Some might murmur invidiously that the space allotted for discussion is quite sufficient for the factual content, but from the writer's psychologic aerie it is possible to ignore such narrow sectarianism.

It would be worth while to examine briefly the rise of a specialty which has more than doubled its practitioners in less than a decade —as the result of need and demand, rather than because of demonstrated effectiveness or increased knowledge. Into a field where physicians were often overwhelmed by the mere custodial problems of hundreds of thousands of psychotic patients in isolated institutions, flocked a large number of young, enthusiastic, men, eager to learn and to practise. Only a handful of hospitals were doing really scientific research, and some of the men prominent in the field were so only because of long tenure rather than great capacity. Into this semi-vacuum, created by the force of demand for service, and by years of inadequate support, poured a tremendous volume of ill-digested data, to create a body of material from which answers to questions could be drawn, physicians could be trained, and therapy supplied. The torrent of words and hypotheses has been so overwhelming that it is not at all surprising that it has sometimes swept pupils and teachers alike off their feet. It is somewhat more astonishing that it has swept along large parts of the fields of psychology, anthropology, sociology and many other disciplines, although considerable reaction has already occurred in these areas, where constant criticism and consolidation are going on. Even in psychiatry, murmurs are heard that we have oversold the field, and that we are not able to fulfill our promises.

When we examine the history of psychiatry as a science, the writer believes that it is not too difficult to discover the source of many unfortunate errors. In the development of a science—a

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process which one might summarize roughly as, first, crude observations; next, statements by great men as forerunners in the discipline; then classification; then framing of hypotheses; experimentation to allow or disprove hypotheses; and finally the formulation of laws—it must be recognized that psychiatry has probably not yet left the stage of statements by great men. It is, of course, acknowledged that no science rigorously follows the path just described, particularly a complex applied science like psychiatry, which has a long history, stretching into the myths of antiquity, but containing within it elements of exceedingly precise measurements such as electronic investigation of neural function and the biochemistry of hormones.

Nevertheless, as a whole, psychiatry has only touched upon the stage of classification and, in many respects, has withdrawn in fear from entering upon its investigation. The preliminary attempts at classification at the turn of the century by Kraepelin and others have been only meagerly expanded and, indeed, in large measure abandoned. With really unpardonable ignorance, it is stated by some psychiatrists that the diagnosis of a psychiatric entity is unimportant and that the so-called psychodynamics are the essential object of study. This would be partially excusable, only if they could give the dynamics in more than hypothetical formulation. Such statements display a lamentable lack of insight into the essentials of scientific procedure and do not speak happily for the future of research in the field.

This attitude displays itself further in an increasing neglect of clinical diagnosis, so that, for example, it is possible to find, relatively, 10 times as many manic-depressive psychoses in the state hospital statistics of one state as in those of an adjoining state. This should bring about an immediate investigation to ascertain associated factors which would soon give us the cause of the disease, were it not known that the difference is merely due to the traditions of diagnosis in the two states. Under such conditions, one begins to despair of the possibility of epidemiologic studies, even of hospitalized patients.

The similarity in many respects of the state of modern psychiatry to that of early nineteenth century general medicine is rather disconcerting. In addition to the possible classifications of a number of entities under one head and the converse—the fragmentation of one entity under different names because of seeming differ-

ences in symptomatology, and the often non-specific nature of diagnoses—the entire specialty is split into many schools, reminiscent of the medieval scholastic era of religious philosophy. While most of the psychiatric schools do not differ in doctrine much more than did the Socinians, Arians, Sabellians, Tritheists and Modalists amongst themselves, the disputation is none the less fierce, with arguments *ad hominem* rather than rational investigation. And one can possibly also say, as did Hallam about the Aristotelian philosophy of the middle ages, that "even in the hands of the master, [it] was like a barren tree that conceals its want of fruit by profusion of leaves." However, deep and fundamental differences in thinking can be found within the discipline; and it is almost axiomatic in the history of science that where this state exists, no matter how fresh and burgeoning matters appear, the field is young and immature. Under these circumstances any finished structure of theory is self-deception to be defended only as a body of dogma.

The writer would, at the same time, draw his readers' sympathy to the psychiatric practitioner who is confronted by large numbers of patients, in the deepest mental agony, begging for relief. It would appear to be poor psychologic medicine to inform these people that the therapist is using empiric methods which have never been established as valid. He must, therefore, act a role which can become rather painful to a scientifically-trained individual. This situation may contain within it the possibility of undiscriminating acceptance of prescientific hypotheses as a solution of this dilemma.

One could go on at great length, and unfortunately with great ease, to a discussion of *Pseudodoxia Psychiatrica,* to paraphrase Sir Thomas Browne, were it not that the topic for discussion is patterns of research. In addition, the writer must confess, that like Browne, he might be accused of some vulgar errors of his own. Let it suffice to say, at this point, that there are powerful groups in psychiatry who have so much at stake emotionally, intellectually, and otherwise, that little controlled, objective, research is possible for large numbers of psychiatric practitioners. To return to the analogy with medieval scholasticism, it would be of little concern if various individuals did indeed busy themselves in determining the number of angels who could dance upon the point of a pin, supposing this could be investigated experimentally. How-

ever, there may be such preponderance of thought and influence devoted to the study of angels and pinpoints that other investigation by other investigators is made rather difficult.

In any discussion of research in a clinical area with a group of public health practitioners, one would inevitably turn first to the epidemiologic studies. The aim would be not only to learn the extent of the problem, but, by studying associated findings, to learn something about etiology—or, at the least, to indicate paths for clinical research. To workers at Johns Hopkins—where one of the best and, indeed, one of the rare surveys of mental illness was done—it is not necessary to point out the difficulties involved. Not only are the psychiatric entities themselves not well defined, as has been indicated in the foregoing, but the seemingly grossly-different states of mental illness, and lack of it, have no accepted definitions. It would, for instance, be almost impossible to find a series of individuals which one psychiatrist had declared to be without mental illness which another would not find riddled with illness. Indeed, it has come to the point where it is said that "All people are neurotic but you and me, and I'm not so certain about you."

What of the use then of so-called objective tests of personality integration as a measure of health? It must be pointed out immediately that these tests rest ultimately upon some estimate of functioning which has not been defined. As one psychologist who did a study upon the reliability of diagnoses by psychiatrists could have stated, "When I can only find 20 per cent agreement of three psychiatrists upon a specific diagnosis and less than 50 per cent on major categories of disorder,[1] how can I possibly use a Rorschach to differentiate one category from another when the standardizations are based upon such diagnoses?" Further serious inadequacies can be indicated to the point where such test usage is probably not wise at this time.

Nevertheless, a number of very intensive, long-time, and exceedingly expensive, epidemiologic studies are being projected in some places. Notwithstanding some of the pitfalls which gape widely at present, and the lack of provision of adequate controls there appears to be a rush into studies which probably will not answer the questions posed. The writer thinks we sometimes fail to recognize that it is not sufficient to ask questions. The possibility of an answer must also exist at the time the query is raised. The

adage of the fool and his questions is not applied often enough.

In some of the projected studies just mentioned, it is even planned that preventive programs be applied to a portion of the population, including psychotherapy to those within the sample who are found to require it. Aside from the problems of randomization and of devising a preventive program, the securing of a control group which would not be influenced by the necessary simultaneous study has not been considered adequately. As for the provision of psychotherapy, the writer would merely like to say that he is unacquainted with a single study in the entire history of psychiatry in which a random sample of neurotics was treated and a control group left untreated or given placebo therapy. It would appear logical to establish first, the efficacy of a method, before it is included as a fixed component in a complex investigation.

It seems to the writer that he has drawn a rather bleak picture of a field still largely in its prescientific era, its efforts riddled with dogma, dualistic, and nominalistic thinking—based all too frequently on *post hoc* conclusions—and its workers unacquainted with scientific method.

The writer believes that in large measure this picture is an accurate one but not quite so dark as he has just described it. In many areas of psychiatry and related fields, remarkable advances have been made. A large number of the organic clinical entities have had their etiology and pathology well defined. Some, such as the luetic and meningitic encephalopathies, are well under control. Excellent neurophysiologic and metabolic studies, which have opened wide vistas for many years of promising research, are under way. There are great volumes of intensive investigation in experimental psychology to draw upon and to apply to psychiatric problems. Happily, it is not even possible to enumerate here all the byways which have been opened.

The writer would like to call attention again to the fact that while psychiatry is old in years, it is in truth exceedingly new, since most of its investigatory tools and techniques are still in the process of development. Psychiatry is complex, and is heavily involved on every level of integration from the cultural to the physiologic, and it is not a simple task to assign etiologic roles to multiple factors. It is also, therefore, not surprising that we are constantly turning off into pseudoscientific, dead-end, side streets

which appear attractive because they falsely appear to lead to simple, seemingly logical, explanations. The discouraging aspect lies in the great difficulty of regaining the scientific highroad. We shall have to bear patiently with those who cannot change or who even claim, and there are many such, that psychiatry is not or cannot be a science—that it is essentially a subjective investigation of the irrational—hoping that they will not impede progress too much.

It has become painfully evident that, because of the tremendous complexity of the factors involved in the formation of the normal personality structure, not to speak of the sick one, we are unable to take a cross-section in time and be certain that we can attribute etiology correctly to specific relationships. Retrospection is open to all the winds of *post hoc* thinking; and, while it has given us a number of hypotheses to investigate, the fallacies inherent in the method cannot allow of its use in any definitive studies. One is then left with the stark fact that only with the very carefully prepared and controlled longitudinal study of the individual—preferably beginning, if possible, even before conception, and continuing through his growth and development—can we hope definitely to assign causative genetic roles to specific events. This is not too happy a prospect to face, and it is, unhappily, too easy to evade. It means that a number of requirements must be met before such research can be entered upon with any hope of completing such studies satisfactorily. To enumerate the most obvious, we must have: individuals who will be willing to sacrifice the opportunities of short studies, with that curse of the academic field, large bibliographies; adequate long-term financing; careful planning and good organization; sufficient personnel so that the problem can be surrounded and not escape through some uncovered loophole; and sufficient access for study to a large enough part of the life-patterns of enough subjects and their controls, without at the same time having an investigation itself play a definitive role in those patterns.

Fortunately, during the time it has taken for these conclusions to dawn upon the profession, a few individuals and their co-workers, such as Gesell, Piaget, Washburn, and Sontag, have patiently and arduously over many years established norms and techniques which can now be used to investigate deviations and their causation.

To illustrate one of these fruitful areas for investigation, the writer would like to describe in some detail one of the projects in which he and co-workers have been interested.

During the 50 years following the introduction of the standardized intelligence test by Binet, literally hundreds of tests were devised; and psychologists busily applied themselves to measuring the reactions of every possible group in the country. We are a great nation for using seemingly objective measures, and we frequently make a fetish, instead of a tool, of numbers. We are also just as capable of berating the tool, and declaring that statistics are of no value, since "you can prove anything you have a mind to." We, in general, have become rather wary of the interpretation of these intelligence tests, and have compiled considerable proof that they have a large cultural component and that what we are measuring in the finer differences of various groups are the results of environmental factors rather than innate or hereditary intelligence.

As one of the distinct ethnic groups on the national scene, Negroes have been intensively subjected to these tests. Almost without exception they have not done so well as the white, so-called controls. While considerable evidence has accumulated to indicate that these differences are attributable to differing socio-economic circumstances, a number of men in the field of "racial psychology," which has grown to a sub-specialty, hold that this is not conclusive. Recently, for example, a former president of the American Psychological Association wrote that "it [is] extremely unlikely . . . that environmental opportunities can possibly explain *all* the differences found."[2] It had been pointed out that as Negro children grew older they did more poorly, a fact which might be attributable to the increased effect of environmental impoverishment. But Garrett, who was just quoted, and others have pointed to a study by McGraw, the only one of its kind, in which it was found that Negro infants, on testing, were significantly below white controls.[3] Since cultural factors were at a minimum at that age period, it was considered that this was conclusive proof of the racial intellectual inferiority of Negroes.

In 1944, the writer became engaged in a study of the growth and development of Negro infants in New Haven, Conn.[4] Approximately 85 per cent of the Negro infants residing during one year in a ward with heavy Negro population were seen. There was suf-

ficient knowledge of some of the remaining 15 per cent who did not fulfill the criteria for inclusion, so that it was felt that the sample was fairly complete. Together with frequent measures of height and weight, each infant was examined twice during the first year of the study, using Gesell's methods to measure and record behavioral progress. Among a series of interesting observations, it was found that these babies were fully equal, behaviorally and intellectually, to groups of white children examined simultaneously, and to the New Haven white children upon whom the norms were established.

A number of environmental factors, which had been found to be related positively or negatively with intelligence in previous studies of older children, were investigated with no significant differences found. For instance, parental education or regional origin apparently was not associated with any differences in the developmental scores. The quality of housing or the presence of siblings was not of statistical significance. Depth of pigmentation of the subjects, as an indication of the amount of white admixture, also showed no significant relationship to behavior.

It was not until examination of the records of physical growth that it was possible to advance a hypothesis for the discordance of these findings and McGraw's. It had been fairly well-accepted teaching that the low birth lengths and weight curves of Negro children were at least partially explainable as racial characteristics. The New Haven subjects, most of whom had been born in hospitals whose records were available, had birth weights and lengths similar to published figures for whites. In addition, the Negro height and weight growth-curves could not be differentiated from those of the best data of white children, or from one group of upper-class (economically) Negro children from private pediatric practice.

During the early '40's, a few reports began to appear from England, Canada and the United States almost simultaneously that prenatal maternal nutrition apparently played an important role, contrary to prior belief, in the physical growth and health of the newborn.[5] Tying all this together, it was hypothesized that the New Haven Negro infants had received adequate prenatal nutrition, probably on the basis of their parents' higher wartime earnings and rationing, and thus were able to equal white growth and developmental rates.

A year later at an average age of 24 months most of the children were re-examined, and it was found that the behavioral developmental ratio of the second of the two first-year examinations, which was somewhat higher than the first, was maintained.[6] Again there were no significant correlations with depth of pigmentation, presence of siblings or parental educational and geographic background. Some positive correlation, although not statistically significant, might be observed with the occupational status of parents and the quality of housing. The height and weight patterns approached the highest white norms.

The only statistically significant correlation found in the group was on the basis of weight, which might, in turn, be positively correlated with nutritional status. When the subjects were divided by the median into two groups on the basis of birth weight, the half with the higher birth weight were significantly advanced. When the children were divided into two groups, again on the basis of whether they were above or below the average age-and-sex-specific weight at the time of the third developmental examination, the heavier children were also significantly accelerated in behavior. However, it was observed that not all children heavier at birth remained above the mean specific weight at the time of the third examination. The entire group was therefore divided into four subgroups on the basis of the relationship of the child's weight to the median weight at birth and to the average specific weight at the time of the third examination. Those children who were low in weight at birth as well as at the time of examination exhibited the greatest difference in adaptive behavior from those children who were above weight at both times. Those whose nutritional status appeared to have declined from birth were also significantly lower in performance.

A number of other interesting observations were made, too numerous to describe here; but one of them might be of importance to the entire problem of intelligence testing of ethnic groups. It was noted that while developmental ratios for all other spheres of behavior either remained constant or rose, that for language behavior fell to the point where the scores at the third examination were statistically significantly depressed below all other behavior areas. On dissection of this field of behavior, it was discovered that examination items which called for nonverbal comprehension responses from the children were remarkably higher—

and were at the level of other developmental quotients—than those which required word response. This might be interpreted on the basis of maladjustment to a white examiner and would introduce a factor which has not been sufficiently accounted for in the examination of older children of different background from the tester. There was some additional evidence to support this argument.

The writer would also like to report that funds have been obtained to finance a fourth examination, in addition to an intensive family study, at a time when the children will average seven years of age. Should it be found that these children have declined in development, compared to the white norms, environmental factors must be sought in the family data, in partial explanation at least. If the children continue to exhibit development at white rates, some evidence will be advanced for the explanation of why Negroes and other socio-economically low groups have done poorly on intelligence tests—and for the hypothesis that prenatal maternal nutrition is an important factor in growth and development.

The latter concept has by no means been proved yet. The definitive and simple experiment, that is, simple on paper, of suppling an adequate diet to one group of pregnant women, withholding it from another—horrible as this may sound—and then comparing the growth and development of the resultant offspring has not as yet been done. The writer would like to discuss such an experiment and its possible findings as an example of research in mental hygiene, which is feasible, important, and possibly fruitful for public health. There are, unfortunately—but thus available for this purpose—a large number of areas in the world where enormous populations subsist or starve on diets inadequate in every type of nutritional ingredient. It would be quite possible, without too great an expenditure, to supplement the diets of pregnant women, or even—in countries where the birth rates are high—the diets before conception. Only too many controls would be available. One could, for example, fortify milk with casein and vitamins, so that adequate intake as far as caloric values, proteins and other necessary elements would be reached. It might even be advisable to include some harmless substance such as large quantities of ascorbic acid, which could be tested for when excreted in the urine, in order to determine objectively whether the supplemental food was being consumed by the person for whom it was

intended. Techniques for the study of the nutritional status of the mother and child, and of the growth and behavior of the latter are available and could be used.

It would even be possible to study the entire problem simultaneously on lower animals. By controlling the diets of rats prior to and during pregnancy, one could investigate the effects on their offspring. A number of objective methods of studying behavior in rats are available and could be used together. They might include maze learning, resistance to audiogenic seizures, measurement of thresholds of frustration and the resulting "neurotic" reactions; conditioning reactions and so on. Many different kinds of controls could be available, litter mates and full-blooded siblings from an adequately-fed pregnancy among them. Using these methods the various ingredients of food including proteins, minerals, and vitamins could each be eliminated singly, and then added in increasing quantities, so that the qualitative and quantitative effects of their absence or lowered intake could be determined. These ingredients could be eliminated during different stages of the pregnancy to determine when their withdrawal accomplishes damage, or how much it accomplishes.

There is now sufficient evidence to indicate that infections and intoxications of the pregnant woman affect her children. The methods described could be used to investigate more fully the effects of these agents upon offspring, by using lower animals, as has been done in all fields of public health.

The writer would like to mention one more pre- and "paranatal" area for research in which he has been interested. The Johns Hopkins Division of Maternal and Child Health has been contemplating an intensive study of the mortality and morbidity of prematurely born children. Because of the well-known propensity of prematures to cerebral injury, this would be an excellent area for an investigation of the effect of this factor upon the behavior of children. While the consequence of gross brain injury upon the production of mental deficiency, epilepsy, and cerebral palsy are fairly well known, we are almost completely unacquainted with the minor cerebral lesions which must undoubtedly take place in significant numbers. There is some reason to believe that a fairly large number of infants exhibit developmental neurologic and behavioral signs of minimal brain injury which tend to disappear

as the child grows older.[7] There is also some clinical evidence to indicate that some children with psychiatric, behavioral, and learning difficulties might have sustained cerebral injuries which left equivocal or no neurologic findings.[8] However, the latter evidence is based largely on retrospective study and is filled with all the possibilities of *post hoc* thinking. The questions which must be posed are, "Does minimal cerebral injury act to disorganize developing behavior patterns, or to interfere with integration in such a fashion that difficulties in total psychologic and, consequently, social functioning result? Can this be one of the many reasons why one individual subjected to a disrupting experience fails to compensate while another manages to overcome the identical difficulties without lasting symptoms?" In the study of adult difficulties, such trigger mechanisms can be buried under years of secondary and tertiary emotional reactions to which primary causation is attributed.

It would be possible to go on almost endlessly to discuss various factors on all the levels of integration which it would be possible, and in the long run necessary, to investigate, with ever-increasing objectivity, as tools are discovered and perfected. The writer has attempted to indicate that there is a hierarchy of areas for research. It seems to him that mental hygiene—which might be thought of as the public-health applied science of the applied science of psychiatry (and this brings up the false distinction of "pure" and "impure" science) cannot afford to flit blithely through the highways and byways of what might be called metaphysical inquiry, but should rather devote itself to studies where the public health applications are inherent in the findings. It ought to try to find answers to questions for which definitive answers are possible, particularly if large expenditures in time, effort, and money are to be made.

The few suggestions for research just made here are not new patterns at all. The writer does not even think they are particularly daring suggestions. At the same time, however, he believes that they are a bit more than attempts to define areas where preventive measures or early care would be repaid. It is only by such investigations that we can begin to establish the base lines upon which a structure of psychodynamics can be erected which will not be mere hypothesis upon hypothesis.

The writer firmly believes that by such efforts we can aid the laborious task of isolating etiologic factors and can help to establish truly definitive classifications from which further research can proceed.

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PATIENT-THERAPIST RELATIONSHIP IN MULTIPLE PSYCHOTHERAPY. II

Its Advantages for the Patient

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Multiple psychotherapy as a routine method of treatment is of very recent vintage. The term itself was first used by Dreikurs to designate a specific type of therapeutic relationship in which more than one therapist treated a patient simultaneously.[1] The technique had been used previously for training purposes,[2] to resolve certain types of difficulties in treatment,[3] and subsequently as a method of research,[4] but not as an established procedure in office practice. A recent paper by the writers describes the advantages accruing to the therapists using the multiple approach.[5] The present paper will be devoted to discussing the value of multiple psychotherapy for the patient undergoing treatment.

Contrary to expectation, the writers have found that their patients accept multiple therapy very easily. At first, many are reluctant and others somewhat suspicious. The best way to overcome this resistance is to start multiple therapy immediately by establishing the roles of the two therapists at the beginning of treatment. The writers' findings are that once the patient has experienced the technique, he sees its value and accepts the approach. In fact, many patients express satisfaction that more than one person is concerned with their welfare. They feel that they are receiving more service and more variety. Multiple therapy, moreover, prevents the patient from feeling misunderstood or abused by one therapist, in that he can always discuss such apprehensions and feelings in the "multiple session." He is, consequently, less fearful of antagonizing the therapist and can "open up" with a greater feeling of security.

This discussion of values for the patient might be prefaced by pointing out that anything which helps the therapist possesses the possibility of being beneficial to the patient. Consequently many of the points which were made in the authors' previous paper[5] may apply equally here. However, there are, in addition, some aspects of multiple therapy which bear more directly upon the patient.

A.

Patients often enter treatment with the feeling, whether it be expressed or not, that the therapist is or should be a powerful person. He should be both omnipotent and omniscient. They exhibit the feeling that the therapist should, figuratively, wave a magic wand and cure them completely and near-instantly. Many request pills or hypnosis or shock treatment—some quick-acting technique. Many do not necessarily want to learn anything about themselves; they just want alleviation of their symptoms. They often ascribe ideal qualities to the therapist and rebel against the idea that the therapist is ungodlike—a human being who makes mistakes, who also has problems. Such concepts are counteracted when two therapists disagree, for the disagreement destroys the projection of omniscience onto the therapist. It makes, of the therapists, not superior beings (human or otherwise), but human beings with perhaps a superior knowledge of psychological dynamics, who are interested in helping the patient to arrive at a new understanding of himself with a subsequent reorientation in his behavior.

B.

True learning is an *experience* rather than a mere *accumulation of "facts."*[6] This experience is provided by multiple therapy in various ways. It permits the introduction of two personalities with two different approaches to whom the patient can react and with whom he can interact. In this fashion, he learns to modify his expectation about people. His fallacious perceptions of social interaction can be pointed out and evaluated on the spot. He can work out his own interpersonal conflicts in his interaction with the therapists. For example, the writers have observed situations in which the patient works out his attitudes toward authority by making the senior psychiatrist a father figure and by, simultaneously, attempting to set up a sibling rivalry situation with the junior therapist. The expansion of therapeutic roles can thus aid materially in the resolution of certain prominent conflicts which trace their origin to the formative years of family life.

Patient A. was the older of two brothers. His father was physically weak, a poor provider, who played a subordinate role in the family. While the younger brother resembled the father, the patient was able to overrun him, being the confidant and helper of mother, and assuming a protective attitude toward his brother.

He was in competition with all men he encountered, trying to elevate himself above them. In therapy, he rebelled against the senior therapist whom he put in the role of his father, and was constantly surprised to find himself unable to push him down. The junior therapist was cast in the role of the brother, with the patient attempting to remain one step ahead and resenting the therapist when the latter could hold his own.

The introduction of fresh viewpoints keeps the therapy from getting into a rut and allows the patient to select, to compare, and to assess the material that is discussed in his presence. In fact, even such a simple procedure as one therapist's rephrasing of the other therapist's remarks can make the material more understandable, and, consequently, more acceptable to the patient. The patient may gain new insights from the "correction" of one therapist by the other, as has been pointed out previously. Certainly, the probability of interpretations being accepted is greater when one therapist independently validates the opinion of the other.

Further, multiple therapy permits the patient to be both spectator and participant. He can be the subject of the discussion and at the same time a more objective viewer of the proceedings. One patient described it as "like watching a ping pong game, only you're the ping pong ball." The patient can observe one of the therapists, for example, play his (the patient's) role and evaluate himself without becoming so emotionally involved that he cannot assess his behavior accurately. It is not implied here, however, that this lack of emotional involvement does not permit a corrective emotional experience for the patient. Much of his own resistance is minimized, since he can perceive the purpose of his resistance in the playing of roles by the two therapists.

Patient B., a college senior, an only child, who became discouraged in his efforts "to be a genius," had become thoroughly pessimistic during his senior year in college, when he was confronted with the intense competition and the uncertainty of his future. However, he was unable to recognize the defeatist and pessimistic attitude he had assumed. During a multiple interview, the active therapist assumed the patient's role and "argued" with the consultant, using all of the patient's rationalizations which seemed to justify his defeatism, while the consulting therapist offered interpretation of the actual motives involved. The patient became able to recognize his motives and his reluctance to participate in

life, and became aware of his own resistance against facing his actual and unfounded attitudes. This was a turning point in his development of better social orientation and of an increased ability to function in school.

C.

In individual therapy, should patient and therapist not "hit it off," the patient may become discouraged sufficiently to terminate therapy. This occurs less frequently in multiple therapy, since the introduction of a second therapist permits resistances to be analyzed more easily in the multiple sessions before they attain this magnitude. In the event that resistance becomes so great, all such efforts notwithstanding, that the patient's hostility or distrust prevents positive movement in therapy, the patient can be transferred to the other therapist without feeling rejected or discouraged, or feeling that he has to start all over again.

D.

Dependency, as a factor in therapy, provides many crucial problems for the therapist. These dependency problems require solution throughout the several phases of treatment. In the initial phases, the problem for the therapist revolves about the necessity of helping the patient recognize his own responsibilities in therapy. The patient, on the other hand, partly due to his own neurosis and partly because of a cultural pattern which proclaims that the "doctor knows best," seeks to rely on the therapist and to be cured by him. During the middle stages of therapy, the patient may vacillate between dependence and rebellion against it; and even the shrewdest therapist occasionally becomes ensnared in the cleverly-set traps of the patient. In the final phases of therapy, the problem of termination becomes prominent. Here the patient must become convinced that he is "graduating" and not being "expelled," that he is ready to meet the world on his own. He must come to realize that, while he and the therapist have been participants in a good relationship, he can now stand by himself.

Multiple therapy facilitates the resolution of these dependency problems. The "doctor knows best" attitude may be discouraged very early, when detected, by a discussion of this attitude by both therapists. It may be pointed out that while the therapist pos-

sesses certain professional skills, the patient will play a major role in the therapy; and he comes to assume some responsibility for his own therapeutic growth through his participation in the discussion.

When dependence upon the therapist is intensified in the middle stages of therapy, multiple discussions may serve to dissolve this impasse to further therapy. In fact, since the patient deals at the start with two therapists, dependence upon a single person is immediately eliminated. It may be indicated to the patient that he need not rely on any single person, that he can consider "going it alone." The patient may thus be guided from an attitude of dependence to one of interdependence. The writers have found special merit for their method in dealing with those intense emotional reactions to the therapist which are often called transference attitudes. Here, by shifting to the "neutral" therapist, these attitudes may be uncovered and faced by the patient with a minimum of fear or guilt. They may be carefully analyzed and interpreted and the transference dissolved.

Patient C. reached a point in therapy where she seemed unable to communicate with the therapist. She felt she was in love with him but felt guilty for having such feelings. After confessing this love to the therapist, she reacted with shame which, in turn, provided another barrier to communication. She had a number of interviews with the consulting therapist, during which she realized that her attitude toward the active therapist was merely a repetition of her attitude toward her father . After this problem was worked out, she was again able to communicate with the active therapist.

Should the active therapist become ill or take a vacation, the patient's dependency needs are less apt to lead to feelings of "desertion." The absence of the therapist merely means that the patient will be consulting with the other therapist for a longer time than usual.

Since all of these emotional attachments can be analyzed and clarified and viewed with proper perspective, termination can be more easily accepted by the patient. Undoubtedly, there may be some regrets about giving up therapy and some experiencing of doubt about functioning on his own. Nevertheless, the "break" is smoother, for his attachment is to the *situation* rather than to an

individual. While he cannot carry the therapist with him when he leaves, he can still take with him much of what he has learned in the therapeutic experience.

Patient D. had reached the stage in treatment where he understood the basic motivational patterns in his behavior. When he recognized this during a multiple interview, he was asked how much longer he was going to indulge himself in his emotional dependence upon the active therapist. The patient immediately saw that he was now using his relationship with the active therapist chiefly for self-indulgent gratification. He consequently set his own termination date for the near future.

E.

Finally, the interaction of the therapists provides a social situation of paramount importance. It shows the patient a good human relationship where two individuals can and do have an interpersonal relationship based upon mutual respect. He can observe the co-operation of two individuals, a co-operation which transcends competitiveness, "power politics," and prestige-seeking. He can see how this co-operation can exist even when the therapists disagree; and, above all, he may learn that one can be wrong without loss of status. This lesson may indeed be of more far-reaching significance for the patient's reorientation than any interpretations referring to his mistaken assumption that to err implies inadequacy or failure.

This procedure has implications beyond individual improvement. It affects the cultural pattern to which the patient has succumbed when he assumes that deficiency is degrading in our contemporary competitive culture. This therapeutic procedure exemplifies democracy in action.

Summary

In a previous paper,[5] the writers discussed the advantages of multiple psychotherapy for the therapist. The present paper discusses the advantages for the patient. Briefly these may be summarized as follows:

1. Multiple therapy creates an atmosphere which facilitates learning.

2. The patient can interact with two different personalities with two different approaches.

3. Therapeutic impasses are avoided by the introduction of fresh viewpoints, thus accelerating the therapy.

4. The patient may view himself more objectively, since he is both spectator and participant.

5. In the event that the therapist and patient do not "hit it off," the patient does not become a therapeutic "casualty" and is merely transferred to the second therapist.

6. The many problems related to dependency in treatment are solved more easily. These include the responsibility for the self, absence of the therapist, transference reactions, and termination.

7. Multiple therapy is an example of democratic social interaction and is thus a valuable lesson for the patient.

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ON TOLERANCE TO AND CRAVING FOR ALCOHOL IN HISTAMINE-TREATED SCHIZOPHRENICS*

A Physiodynamic Interpretation of Observations on Histamine-Adrenocortico-Hormonal Equilibrations

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"Alcoholism" is still often treated as a disease *sui generis*, despite realization that it occurs most frequently as one of the symptoms of psychiatric disorders and despite recent recognition that it is metabolically influenced.

In the course of the writers' investigations in defining metabolic alterations in psychiatric conditions, a number of incidental observations have been made on the reactions of histamine-treated schizophrenics to alcohol, as expressed in tolerance and in craving. The findings were consistent and striking. They emphasize:

1. Tolerance to alcohol and craving for alcohol are disparate phenomena.
2. The metabolic effects of certain hormones can alter the phenomenology of problem drinking.
3. There is need for accurate psychiatric diagnosis.

These findings are here presented and analyzed from the physiodynamic viewpoint** that the writers have previously applied to other psychiatric disorders.[1, 2] It is hoped that this report will help to advance the study of the metabolic aspects of "alcoholism" which has been the subject of reports by Smith,[3, 4, 5] Tintera and Lovell,[6, 7, 8] Hirsch,[9] and Braceland and Rome.[10]

Clinical Material and Results

The pertinent clinical data of the 11 non-hospitalized patients are summarized in Table 1. It must be emphasized that in only three of these patients (V179, V335 and V305) was uncontrolled drinking of alcohol one of the presenting complaints. In the other

*Presented at the Upstate Interhospital Conference of the Department of Mental Hygiene, April 1951.

**The findings support, and are theoretically explicable by, the physiodynamic neuroendocrine formulations, which more than two years ago made possible our prediction that ACTH, cortisone and adrenal cortical hormones would produce psychoses in certain individuals and would alleviate a wide variety of psychoneurotic and psychosomatic manifestations in others. (Refs. 1 and 2.)

eight, drinking was only an incidental feature, the changed reaction to alcohol having been reported spontaneously by the patients in the course of therapy.

Results: (a) All 11 patients spontaneously reported marked reduction in their capacity to tolerate alcohol. (b) The three patients, in whom craving and uncontrolled drinking were major complaints, spontaneously reported both an elimination of the desire for alcohol and marked reduction in tolerance to alcohol.

The laboratory data, while at present not either statistically significant or of basic importance to the analysis, are included for reference.

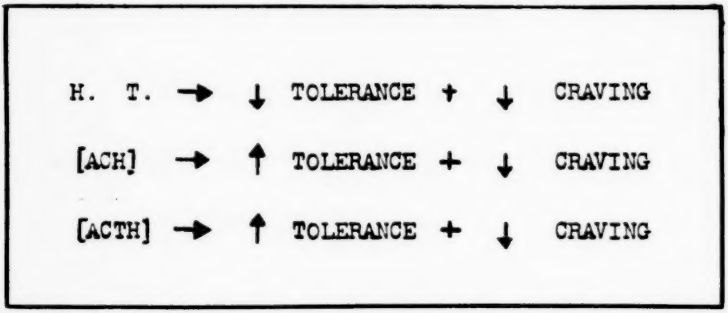
Discussion

These findings, when integrated physiodynamically with our previous work on hormonal equilibration and with the data on adrenocortical hormones and ACTH (histamine antidynes*) made available by other workers, bring out a number of interesting implications in relation to tolerance and to craving.

I. *Tolerance and Craving as Disparate Phenomena*

The present findings showed that tolerance and craving varied in the same direction in psychotics treated with histamine; i. e., tolerance decreased, and craving appeared to be eliminated. Previously these two reactions to alcohol have been influenced in opposite directions by adrenocorticoids and by ACTH; i. e., toler-

Figure 1. Differences in response, as shown by tolerance and craving for alcoholic beverages in patients treated by histamine therapy, and by administration of adrenocorticoids and ACTH.



*Antidynes refer to those forces within the organism which act to counter or oppose factors of antagonistic action. (See Ref. 1.)

ance increased, and craving appeared reduced. The specificity of response would indicate that these two phenomena are distinct and may be influenced differently by different stimuli. The mechanism for such reaction becomes clearer under physiodynamic analysis. (Figure 1.)

A. *Tolerance*

The reduction in tolerance reported by all the 11 patients under histamine biochemotherapy could be referable to one or all of several physiologic levels.

1. At the neurone, as a direct cellular effect.

2. At the blood-brain barrier. Since both histamine and alcohol increase intracranial pressure, resulting from either meningeal vasodilatation or increased blood-brain barrier permeability or both, the combination could contribute to a higher concentration of alcohol in or at the neurones and thus lead to a decrease of tolerance.

3. Systemically in the blood, tissues or organs, involving the mechanism for detoxifying alcohol, particularly in the liver, histamine could reduce the capacity of the total organism for handling alcohol.

At all physiologic levels the interplay of such hormones as the adrenocortical and their "antidynes" or antagonists—histamine, insulin, thyroid and gonadal hormones—may be an important factor. It is in the understanding of these interactions that the physiodynamic analysis may be useful.

It has been reported that adrenocortical hormones promptly clear the manifestations of acute alcoholic intoxication, delirium tremens and Korsakoff's psychosis; that ACTH is similarly effective in the therapy of acute alcoholic intoxication and, indeed, is the preferred therapy for delirium tremens and that the administration of adrenocortical extract and cortisone increases tolerance for alcohol.[2-8, 10] Thus the adrenocortical hormones, within certain limits, foster cerebral tolerance.* In this work, histamine, an adrenocortical antagonist, has been found to reduce tolerance. A direct relationship may therefore exist between tolerance for alco-

*The remarkable tolerance of schizophrenics for such substances as barbiturates, morphine, histamine, sex steroids and thyroid is, according to the writers' formulations, related to their high operative concentrations of adrenocortical hormones. Interestingly, administration of either sex steroids or thyroid reduces, in turn, the schizophrenic's ability to handle histamine.

Table 1. Effects of Histamine Biochemotherapy

No.	Sex	Age	G. T. T.† Pre-Rx	Psychiatric clinical response	Tolerance	Craving
V179*	M	43		x x x x	Reduced	Eliminated
V335**	F	31	97, 141, 177, 186, 124	x x x x	Reduced	Eliminated
C105	M	41		x x x x	Reduced	Not a major complaint
V116	F	29		x x x x	Reduced	Not a major complaint
V376	M	41	145, 185, 174, 67, 71	x x x x	Reduced	Not a major complaint
C11	M	24	137, 120, 152	x x x	Reduced	Not a major complaint
V350	F	45	82, 182, 152, 73, 77	x x x	Reduced	Not a major complaint
V364	F	44	83, 145, 134, 74, 69	x x	Reduced	Not a major complaint
C88	F	39		x	Reduced	Not a major complaint
C104	M	51	118	x	Reduced	Not a major complaint
V305**	F	39	70, 118, 124	o	Reduced	Reduction with exacerbations

*The patients are from several different series for study of the effects of histamine biochemotherapy. The observations on craving and tolerance are incidental to the other studies. These data were collated subsequently for this report and are, therefore, not complete in the foregoing categories. While the series of patients is too small for statistical significance, the clinical psychiatric responses in this group with complaints referable to alcoholism were superior to those in the other series receiving histamine therapy.

**Patients in whom excessively frequent, acute alcoholic intoxication was one of the presenting complaints.

†G. T. T.—Glucose Tolerance Test, blood level in mg.%.

on Reactions to Alcohol in 11 Schizophrenics*

Remarks
Also, addiction to benzedrine and marijuana completely overcome.
Referred for trial on histamine prior to lobotomy. On admission, acute alcoholic intoxication, gastroenteritis and peripheral edema. Three relatively minor relapses in nine months when emotionally disturbed. "Had gastric disturbance on second drink."
Patient spontaneously reported, "While my consumption was never high, I can't even take one drink now."
Also, promiscuity was a major complaint on admission. Response to first course of therapy. "Last night I noticed I can't drink anymore. I don't care for it. I wanted them but it didn't worry me. Knew I could stop."
"Allergic" reaction to alcohol reported. Homosexual panic and depression following termination of "affair." Controlled within 10 days.
Drinking decreased and controlled on therapy. Slipped when off treatment; currently on maintenance therapy, t. i. w.
Addiction to benzedrine (100 mg. per day) also modified and controlled. Currently on 10 mg. per day.
"I used to have a hollow leg. I can now only take one small drink." Now a half-glass of wine results in intoxication.
Previously hospitalized for psychosis. Marked reduction in tolerance after 15 treatments. Reported spontaneously as "very dizzy and intoxicated after one high ball."
Patient spontaneously reported reduction in tolerance.
Vomited wine.

x x x x —convalescent status, or its equivalent, permitted to go home under criteria of the hospital.

x x x —good improvement in several areas, with marked changes in mental status, but still insufficient for convalescent status.

x x —fair improvement, affecting one area markedly, or more than one area to some considerable degree.

x —determinable change in one area only, unsupported by other changes or not sustained.

o —no change.

hol and the operative concentrations of adrenocortical hormones which, in turn, may be held in check by adrenocortical "antidynes," the susceptibility of the end-organ remaining equal.

An extension of this to a wide range of clinical phenomena is interesting.

1

Trauma and surgical operations, both potential liberators of histamine or histamine-like substances, are, together with acute infections, notorious for precipitating delirium tremens in chronic alcoholics.[2, 11] The fact and its converse, that chronic alcoholics are poor surgical risks and have poor prognosis in critical infections, are both better comprehensible in relation to the proposed ACH-histamine equilibrations.

2

One would likewise anticipate that adrenocortical stimulation would express itself clinically by an increase in tolerance. Both glucose and alcohol can act as adrenocortical stimulants. Let us, from this perspective, examine a few common procedures and observations in regard to problem drinking.

a. It has been a practice in some hospitals to administer small amounts of alcohol in acute alcoholic states and delirium tremens. There is also the lay corollary in the custom of taking "some of the hair of the dog that bit you." Both may be explicable physiologically even though their justification may also be challenged physiologically. Since alcohol is reported to stimulate adrenocortical output, its administration may, in the presence of adrenal reserve, afford some relief of symptoms—albeit, temporary. However, the total amount of cortical substance mobilized must be related to the added burden of handling or "detoxifying" the alcohol used to stimulate its output. Thus, a momentary gain may give way to an ultimate loss. In addition, one must consider the effect of the use of alcohol as a repetitive stimulus. Even if an alcoholic has sufficient cortical reserve, as indicated by his response to ACTH, one must consider that continued or closely-repeated administration of a substance can alter its ability to act as a stimulus. That refractoriness may develop in some patients to certain substances acting as stimuli may be related to the time patterning of their administration. This has been noted with the adminis-

tration of histamine.* Those patients not developing refractoriness with continued administration of alcohol may "wash out" their adrenal reserve and render themselves more sensitive to the effects of alcohol.

b. Alcohol taken with a meal is known to have less intoxicating effect than when taken otherwise. In addition to other possible mechanisms, may the writers submit that cortical-stimulating effects of glucose (food) could enhance cerebral tolerance.

c. On the basis of these premises, one would suspect that the administration of sex steroids and thyroids would lower cerebral tolerance to alcohol; that tolerance would likewise be low in hyperthyroidism and other psychosomatic states, such as the allergies—asthma and hay fever. In fact, one would then anticipate a reciprocal relationship in which alcohol could raise susceptibility to allergies.** In this connection, it is interesting to note that the allergist, empirically attempts to interdict alcoholic beverages.

d. From this perspective, one could venture further physiologic interpretations of a number of "bar room" colloquialisms. It would seem that the layman's "man with the hollow leg" who can "drink anyone under the table" is, in effect, a person capable of mobilizing a good operative concentration of adrenal hormones. Whereas, "the gal who is an inexpensive drunk" and "the guy who just can't take it" may be either more potent in respect to such "antidynes" as histamine, gonadal, thyroid and other hormones, or may be deficient in adrenocortical output.

This must not be construed to mean that tolerance continues to improve for as long as the adrenocortical levels increase. In any consideration of effects upon cellular function, it would seem apparent that optimal cellular physiology is reached when operative

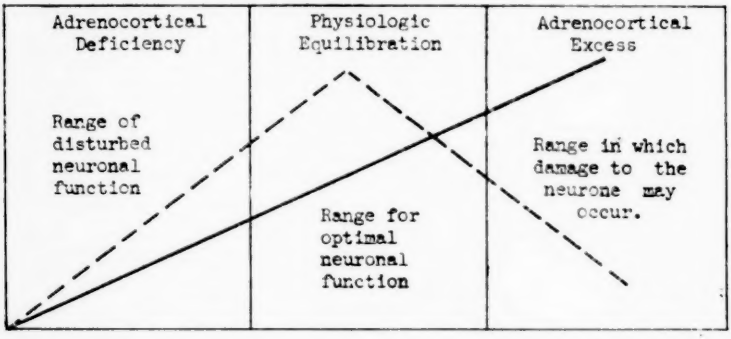
*The writers have given over 15,000 histamine injections in their biochemotherapy of psychoses in hundreds of patients, without a single case of peptic ulcer formation. Another worker, studying histamine in a slow absorption medium for its effects on physiology, has reported perforating ulcers as a complication. This observation is likewise of interest in relation to burns, wherein perforating ulcer may be an expression of continuing and, for a period, progressively rising blood histamine levels. Whereas ACTH may, in the presence of adrenocortical reserve, give good results, it would seem that adrenocortical hormones—either alone or in conjunction with ACTH—in relatively massive, and for a period, progressively increasing, doses would be more beneficial.

**This relationship would raise for consideration the effect of alcohol on histamine blood levels. Facial flush, headache and increased cerebrospinal fluid pressure are associated with acute alcoholic states. These may be direct pharmacologic effects of alcohol; and/or reduction of adrenocortical levels, with resultant increase in the operative concentration of histamine.

concentrations of essential substances are within certain ranges and are in physiologic equilibrium. An example of this, in the field of mineral metabolism, is the calcium and potassium balance; and in the field of endocrine metabolism, the equilibration between the adrenocortical hormones and their "antidynes."

A deficiency of adrenocortical hormones, as has been reported, impairs normal function. On the other hand, an excess may not only impair function but may even lead to organic damage. Thus, one must keep in mind not only the concentration of a particular substance and its time patterning in interaction with an end-organ, but also the point at which organic change might occur in the end-organ. These considerations in relation to tolerance to alcohol of the cerebral neurones may be tentatively represented graphically in Figure 2.

Figure 2. Graphic representation of postulated relationship of neuronal function to operative of adrenocortical hormone.



——— Hypothetical operative concentration of adrenocortical hormones.

- - - - Tolerance of neurone to pharmacologic effects of alcohol.

B. *Craving for Alcohol*

Craving, or desire for alcohol and its inebriating effects, may be the resultant manifestation of metabolic and/or psychologic factors and their interaction. The relative role of each is dependent upon the underlying pathology.

One metabolic factor, adrenocortical hormone, has been reported to reduce craving in problem drinkers—without reference to psychiatric classification. Another, histamine, was found to do like-

wise in the three psychotic problem drinkers in this series. Thus, craving is influenced in the same direction—reduced by two substances which are "antidynes," or antagonists, in certain areas of their physiologic effects—histamine, on the one hand; and ACTH, cortisone and ACH, on the other. Contrastingly, the effects on cerebral tolerance are dissimilar, being increased by adrenocortical hormones and decreased by histamine. The effects of these substances on craving may, therefore, be influenced less directly—possibly also through the mediation of psychologic mechanisms. It is understandable that therapies, which have some effects diametrically opposed to each other, could reduce craving if they both removed psychologic factors making for distress.

Thus, on the one hand, craving for alcohol with stigmata of hypogonadism could be a symptom in adolescent schizophrenia. On the other hand, the craving could be secondary to feelings of shame or inferiority accentuated by a physical deficit which, in the individual's environment, subjected him to scorn. Sex steroid therapy might then be successful in reducing craving (as has been reported)[3-8] in both types of patients. At the same time, it is not inconceivable that in some mild schizophrenics the disease process might be arrested by anti-adrenocortical effects of continued alcohol addiction.

In view of these considerations, attention is called to the following observations:

a. A large group among alcoholics of "younger males . . . asthenic in habitus with soft, smooth faces and little or no chest hair . . . not infrequently gynecomastic."[6] "Body hair among (male) alcoholics follows the female distribution."[3] The onset of drinking was notably heaviest at the age of puberty or shortly thereafter.[12]

b. "In female alcoholics infantile uteri are frequently found."[5]

c. "Alcoholism may begin in the menopausal period, either surgical or natural."[4]

d. "Well-established alcoholism usually remits during pregnancy."[3]

The common physiologic denominator of the first three of the foregoing features is a relative, or absolute, deficiency of gonadal hormones. No evidence has been reported as to which of these features pre-date, or are primary to, the onset of alcoholism and which are the results of the alcoholism. However, it is certainly unlikely that an infantile uterus or menopausal changes would be

the results of alcoholism. At least in some of these cases, there must be primary hypogonadism.

Hypogonadism may be accompanied by either a corresponding hypo-adrenocorticism and maintenance of hormonal equilibria or by a relatively more marked hypo-adrenocorticism or by a hyper-adrenocorticism—with resultant disorders of equilibration, with ensuing psychopathology and addiction.

II. *Need for Accurate Psychiatric Diagnosis*

The foregoing analysis is directed at clarification of the etiology and pathogenesis of the problem drinker. Only through an integrative study in which chemical, pharmacologic, endocrinologic and psychiatric technics are employed with greater precision than has been done heretofore, can the physiologic factors be better understood. Sharp psychiatric diagnostic differentiation in place of personality and symptom classification[9, 13, 14] is mandatory, not only for a better understanding of physiology but also to avoid therapeutic error. Thus, it has been reported that adrenocortical hormones have produced convulsions in alcoholics. It would follow that this deleterious effect of adrenocortical hormones and ACTH should contraindicate their use in psychotics, pre-psychotics, certain postpartum and involutional patients, except in such specific emergencies as delirium tremens. Adrenocortical substances should be most beneficial in reducing craving for alcohol in patients with psychoneurotic and psychosomatic disorders, in raising tolerance and in reducing the manifestations of acute alcoholism, particularly in delirium tremens. Histamine, on the other hand, appears to be beneficial in reducing craving in many psychotic patients, even though it concomitantly lowers cerebral tolerance.

Summary and Conclusions

1. The effects of histamine biochemotherapy on 11 non-hospitalized schizophrenics are presented in a preliminary report, and the findings and endocrine interrelationships are analyzed from a physiodynamic viewpoint involving endocrine interrelationships.

2. In this study, histamine has been observed to reduce both tolerance and craving.

3. ACH, ACTH and cortisone have been reported *to increase tolerance and reduce craving.*

4. The need for sharp differentiation between cerebral tolerance and craving, as influenced by therapy, is stressed.

5. The full significance of this difference in action must await detailed reports on the psychiatric classification of patients under treatment by all groups of investigators.

6. The importance of diagnosis is stressed as fundamental to proper endocrine therapy.

7. The metabolic approach appears to be a promising avenue for the study of problem drinking just as it is for psychiatric disorders in general.

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THE SEMI-RESPONSIBLE INDIVIDUAL*

BY FRED A. METTLER, A. M., M. D., Ph.D., Sc.D.

The writer's present role in addressing a mixed audience of barristers and physicians* is somewhat out of his official character as an experimental scientist but is in the most obnoxious of categories, that of an interested citizen. His interest in the subject for discussion has arisen from the fact that the United States Public Health Service has asked him to devote some attention to the circumstances of psychosurgery, which is predominantly a form of treatment for psychosis in which more or less of the front part of the human brain is removed. Such an operation has been performed, according to the latest count, upon some 20,000 persons in the United States. Some authorities believe that operations of this type permanently degrade the personality of the individuals receiving them. This is a moot technical point;** the important issue is that some authorities adhere to this opinion. Consequently, the question which has bothered the writer is whether persons who have received such an operation can be considered fully responsible thereafter. The legal possibilities opened by such a consideration are numerous, and one may foresee an endless parade of precedents and opinions developing. Indeed, the writer would hesitate to verbalize his thoughts on this matter at all, except for the fact that since the publication of a discussion of the question, the problem has already made its appearance in court.

The simplest reduction of the circumstances involved (from the legal point of view) has been expressed by an eminent legal mind with great experience in this field, in the statement: "If you will tell me whether the patient in question understands the nature and quality of his acts and whether he knows whether an offense he committed was wrong at the time he committed it, I will be able to give my opinion as to whether he is legally responsible." Translated into medical terminology this means, "Doctor, it's your bag, you hold it."

In his introduction to the psychosurgery conference volume cited, Bigelow summarized the feeling of some two dozen au-

*An address delivered December 6, 1951, at the Queens County Court House, New York City.

**See: *Proceedings of the First Research Conference on Psychosurgery.* Newton Bigelow, M. D., editor. United States Public Health Service Publication, No. 16. 1951.

thorities in the field under consideration by saying, "The conferees appeared to agree—that legal recognition of only the fully competent and the fully incompetent was at variance, not only with sociological opinion, but with medical fact."

Now this is no new problem. In the year in which the writer was born, Joseph Grasset said in his *Demifous et Demiresponsables* "no legislature can refuse to consider it or evade an attempt to solve it" (Grasset, you see, being a Frenchman, was a bit enthusiastic). Nevertheless, it is this question of whether we should not make an effort to recognize varying capacities to assume responsibility which the writer wishes to re-examine here.

Incapacity Contrasted with Inequality

The recognition of unequal capacities in different persons is as old as mankind's opportunity to make comparisons and has, from time to time, complicated a clear comprehension of the legal and social rights of mankind. In general, however, the obvious fact that one man is permanently or temporarily unable to do what another can do with ease has had little bearing upon social inequality and the reflections of this in the legal structure. Slavery, feudalism and other inequalities of privilege, such as were inherent in the principle of election by *major et sanior pars,* arose on a basis of power and lack of recognition of social responsibility and crumbled when these disappeared. Supernumerary artificial ideologic props for such systems were, of course, later developed and, when the continued maintenance of such systems was jeopardized, were half-heartedly appealed to as *raisons d'être,* but reasons which no one had any real hope would suffice to prevent the collapse of the crumbling social structure. The fundamental issues are, of course, that physical (or psychic incapacity) and social inequality are distinct phenomena, that the existence of such incapacities does not justify social inequalities but that they are occasionally exploited for such a purpose.

Qualifying Characteristics of Incapacities

The inabilities of persons may be congenital or develop later and are of permanent or temporary nature. Thus, color-blindness is congenital and permanent, presbyopia usually develops only long after birth and is permanent, nerve blindness may occur at any time and is permanent, while toxic blindness ordinarily only oc-

curs after birth and is usually of a temporary nature. There is good reason to believe that psychic dysfunctions can be similarly classified. Incapacities in individual performance are also divisable into compensable and partially compensable and uncompensable types. This is true of psychic as well as other inabilities and disabilities.

Obscure Nature of Impaired Responsibility

One doubts if the legal mind would take objection to any of this. No lawyer would argue that a frankly psychotic or thoroughly intoxicated individual is aware of the nature and consequences of acts committed during the period of the psychosis or intoxication. Both law and equity do, however, tacitly encourage distinctions involving circumstances such as might exist between a state of alcoholic intoxication, occurring as the consequence of voluntary drinking consciously engaged in, and a similar intoxication occurring as the result of the unconscious and involuntary development of the state as it might occur in the course of an insufficiently protected industrial process. The assumption behind such tempering of justice is that no person has the right to engage in social contacts of a possibly damaging nature after wilfully degrading his best capacities to deal with the problems which may arise. Everyone is, of course, aware that alcohol does not affect all persons in the same manner but as a rule, the consideration that the person suffering from pathologic alcoholism faces almost as difficult a situation in controlling his intoxication as the person involuntarily intoxicated in an industrial establishment, is too complex for the law to deal with in a direct and straightforward manner. The assumption is that the person with a low resistance to alcohol, like a person with visual disorder, knows his limitations and is responsible for the consequences of exceeding these. An analogy might be a blind person who undertook to drive a car. Such a point of view neglects the fact that the dipsomaniac usually suffers from impairment of general psychic ability as well as in his tolerance to alcohol.

Difficulties in the Legal Approach to the Question of Responsibility

Difficulties in the approach to the problem of responsibility from the legal point of view involve (1) communications defects between lawyers and doctors, (2) the failure of the legal structure to deal operationally with the state of semi-responsibility, and (3)

the deliberate obfuscation of the facts for the purpose of evading the consequences of deliberate offenses against society by relatively responsible individuals.

Present Legal Position of the Semi-responsible Individual

This discussion will concern itself only with the second difficulty. At the present time the law takes the position that a person is either responsible or irresponsible, and technically ignores the possibility of a transitional state between these two conditions. Practically, however, the legal structure does recognize temporal variations in an individual's competence (as defined by a lack of knowledge that the crime is wrong or that the transgressor has insufficient will power to resist the impulse to commit it) by specifying that the degree of responsibility should be determined in any legal issue only with regard to the particular transgression under adjudication and at the time and under the circumstances under which that transgression occurred.

It is, however, apparent that examinations to determine the degree of responsibility can hardly ever be carried out at the time and under the circumstances of the crime. Such examinations therefore assume the form of an estimate as to the existence of probable or possible circumstances and provide so wide a degree of latitude that expert medical testimony is forced to consider many highly improbable and irrelevant circumstances. This is the area in which the professional trial lawyer, especially if he is the defense attorney, exhibits his own special skills, and the area in which sight is lost of the original circumstances.

We all know that certain frankly psychotic individuals are perfectly competent to execute legally valid contracts or wills but we also know that it is a rare phenomenon for such contracts or wills to be sustained in court. Conversely, while the unreliability of emotionally immature individuals is well recognized in personal relations and in industry, the law is often forced either to discharge or punish such persons; but since the area of incompetence is difficult for the offender himself to perceive, he can be expected to continue to fall into the same pattern of difficulty, regardless of the legal treatment of his case. In essence, the judge, harassed by an overcrowded calendar, and the jury, confused by bemused expert testimony and sometimes befuddled by adroit pettifoggery, not infrequently consign the semi-responsible individual to a bed

of Procrustes on which he is either stretched to the limits of a generalized condition of full responsibility or truncated to irresponsibility.

The Nature of the Semi-responsible Individual

In the strictest sense there can be not only no dividing line between responsibility and irresponsibility but also no clear demarcation between any degrees of gradation between the two conditions. At the extremities of the scale of relative responsibility, there certainly are no individuals who are fully responsible or irresponsible throughout their lives for all their acts and in all circumstances. Nevertheless, from a practical point of view, it would be expeditious to divide the range of responsibility into three, instead of two, territories, and to recognize an area between relative responsibility and irresponsibility. The essential characteristics of persons found in this behavioral area are that—while they do not qualify as irresponsible by the two principal tests used in this country—their pattern of behavior can be confidently expected to bring them into continued conflict with the mores of their particular social system.

Such persons do not qualify as irresponsible on the basis of the "right and wrong test." They do know the nature, consequences and wrongfulness of their acts. Neither do they clearly qualify as irresponsible under the "irresistable impulse" test (in the 18 jurisdictions in which this is valid), for they do not entirely disregard the nature of the surrounding circumstances in committing their acts. On the other hand, such persons often have a confused idea of the social character of their acts or a pallid appreciation of their implications. Frequently, they also exhibit a low degree of resistance to transgression. From the physician's point of view they fall into several classes. These are (1) the prepsychotic individual; (2) the convalescent psychotic; (3) individuals with subclinical psychotic traits, with or without evidence of organic damage of the brain; (4) psychopathic personalities; and (5) psychoneurotics (severe).

Now a terminology of this type, while of some medical significance, is not particularly enlightening to lawyers or justices. Where, they will ask, are our old acquaintances of the dock? "Where is the bluff, heavy-drinking, quarrelsome friend of the madames and small-time crooks?" "Where is the hard-mouthed,

scantily-clad vixen who never seemed to be able to restrict her donations to the church offertory?" "Where is the pathetic facsimile of the movie big shot, the despicable sex offender, the crank and the incorrigible liar?"

Many of these people are included in the categories listed; but, as our hypothetical judge well knows, not all these characters are semi-responsible individuals—some are clearly irresponsible morons while others are relatively responsible indeed. Let us examine some particulars.

1. *The Prepsychotic Individual.* A four-times married woman, who came to the writer's attention through difficulties which she and her first husband had as a result of a disagreement about the degree of reasonableness of the divorce settlement, was energetic and strikingly attractive. She was reasonably successful in her own business. Though considered erratic by her employees, she had many devoted friends, some genuine, others who took advantage of her impulsive generosity. In the course of successive, rapidly-changing marriages and divorces she acquired a number of children all of whom spent their infancy in erratic and disordered environments. Her husbands were very diverse, one exhibited relative sexual incompetence, another was a sadist, another was a dipsomaniac, and the other a chronic invalid. Alternately in debt and well off, she terrorized tradespeople, quarreled with assorted, duly-constituted authorities, engaged in a variety of political endeavors, was evicted from her apartment and precipitated a number of exciting and variably publicized melees among males in public drinking places. She was in and out of difficulty with the law, engaged in endless litigation, was the focus of considerable social confusion, and it ultimately became clear that this woman was developing well-defined manic episodes of a frankly psychotic character. It is concluded that, while she was not completely irresponsible for a long period, she ultimately became so, after passing through a period of semi-responsibility.

Dr. Harry A. LaBurt* has raised interesting questions in connection with the prepsychotic person. The first, "When should a committee be appointed?" can be a thorny proposition; but it is the writer's impression that any committed psychotic should have a committee appointed as soon as he is committed, and, whether he has been declared incompetent or not, if he possesses any signifi-

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cant amount of this world's goods. In the case of a veteran, special circumstances obtain.

Dr. LaBurt's second question relates to the validity of contracts executed by prepsychotic individuals. Comment on this point will be deferred until the convalescent psychotic has been discussed.

2. *The Convalescent Psychotic.* One of the writer's state hospital projects included a middle-aged woman who, while still a girl in Europe, had been committed to a reliable institute with the diagnosis of schizophrenia, paranoid type. She subsequently came to this country with her sister and before very long was an inmate in the New Jersey State Hospital at Greystone Park with the same diagnosis. Following psychosurgery she brightened up, took more interest in her appearance and was able to leave the hospital to take up domestic service, which she performed with a high degree of conscientiousness in the family of a psychiatrist. His observations conclusively indicated that while this woman was never entirely free from the delusions and hallucinations which had characterized her former state, she was less oppressed by them and had been able, in spite of two brief relapses, to carry on a socially useful existence.

It is concluded that this patient though still possessed of the essential pathology of her original disorder is responsible in a legal sense. A more realistic characterization would regard her as semi-responsible.

Dr. LaBurt has raised two questions relating to the psychotic convalescent. The first of these is part of his question on the prepsychotic person. He questions the validity of contracts executed by prepsychotic persons and psychotic convalescents. Under provisions of present law such persons are liable for contracts if they are capable of understanding the nature and implications of the transaction. Commitment does not necessarily release a person from contract liability but a lawyer would at least feel the urge to try to force this point. As the law now stands, relative responsibility is implicitly recognized. Such a case would have to be determined on its merits. The writer sees no reason to alter this situation. This arrangement does, however, place a very specific responsibility upon the presiding judge. The circumstances of cases of this type can easily become obfuscated; and the responsible justice is placed in the position of clearly understanding the

principles of semi-responsibility and of seeing to it that the jury is kept from becoming encumbered by irrelevant material.

Dr. LaBurt's second question concerns the possible liability of a patient's committee of the person, or of the superintendent of a hospital, for approving or ordering the use of a potentially damaging therapy. While Dr. LaBurt had psychosurgery in mind in this connection, the problem is a general one. The writer must digress a moment in answering, since proximal liability rests not upon the persons noted, but upon the person who administers the therapy. It is recognized that a military physician might conceivably be court-martialed for failing to carry out the orders of his superior officer in such a connection. Certainly his social relations would suffer. The physician has, however, a basic ethical responsibility which, the writer considers, takes precedence over any legal or social encumbrances; and that responsibility is to his patient. In a larger sense, this principle applies also to the patient's committee and, more especially, to the hospital superintendent. One can be sure that we are all agreed up to this point.

We may now direct our considerations to an example. Let us suppose there is a particular schizophrenic patient who, before his commitment to a public institution for the mentally ill, had been an accountant at a salary of $8,000 a year. Let us further suppose that this patient's committee had learned that psychosurgery was being employed for the treatment of schizophrenic cases and had requested consideration for his ward with regard to such treatment. Or let us suppose that no committee had been appointed and that no relatives existed and that the hospital superintendent had ordered the investigation of the case with regard to the use of such treatment. Let us suppose further that, after examination of the circumstances of the case, it was decided that the use of such a treatment provided a reasonable assurance of improvement of this particular patient, and let us further assume that the treatment was competently utilized. We shall further assume that the patient subsequently showed sufficient improvement to be discharged from the institution but that, as a direct consequence of the operation, he now suffers from fits. If such a convalescent sued his committee or the hospital superintendent, because his fits prevented him from engaging in his former occupation and because his improvement was unrelated to the therapy employed, it is the writer's opinion that he would have no valid cause for an action.

Fits occur in a certain proportion of individuals so treated, but the preponderance of informed medical opinion is in favor of the belief that psychosurgery does contribute to improvement and that the occurrence of convulsions in a certain proportion of patients is an unavoidable hazard. The cardinal requirements upon which the writer's opinion is based are: (1) that the therapy employed is considered, by the majority of informed medical opinion, to be of a beneficial nature; (2) that the case had been adequately studied and that the employment of the therapy in question was considered indicated; and (3) that the therapy was properly and competently employed.

If a majority of informed medical opinion was not available to indicate that the therapy in question was beneficial, it would be the writer's opinion that the hospital superintendent should not order its employment but might agree to its use if the committee requested it and signed a release for the hospital's responsibility in connection with it. The committee would then be liable. If the case had not been adequately studied, if the indications for employment of psychosurgery were dubious, or if the therapy had not been completely and properly employed, the hospital would, in the writer's opinion, be liable, and the committee might reasonably be joined in the action.

As a procedural formula, the writer believes it advisable in all cases of this type to prepare a standard form with: (1) current informed medical opinion on the utility of the form of therapy in question; (2) a statement of all possible complications; and (3) the signature of the committee, under a statement that the committee has had adequate time and opportunity to consider the implications of the statement and does in fact release the hospital from liability except insofar as malpractice is concerned. While such a procedure cuts down the number of patients receiving new therapies, it does insure that the therapy has better subsequent support than it would otherwise receive at the hands of disinterested or casual relatives.

3. *Subclinical Psychosis.* A suspicious man of advanced years, with some disorientation as to time, quarreled with his near relatives who, it is true, had over-reacted in a rather inconsiderate manner to his somewhat crotchety disposition. This man came to the writer's attention through his lawyer whom he had instructed to make certain antemortem dispositions of his estate in favor of his

housekeeper and certain remote philanthropies, and because the lawyer could not persuade him to be examined by a psychiatrist. The lawyer was well aware that the natural heirs would contest these arrangements and was interested in knowing if he would be able to defend them after his client's death. It was clear that this elderly gentleman was completely competent to make, and had a right to make, the arrangements he desired. Before his death, however, these arrangments were set aside as a result of legal action brought by the natural heirs.

In the writer's opinion, this man was entirely responsible, insofar as the acts in question were concerned. A more precise characterization would have been "semi-responsibility" with subclinical involutional psychosis or, according to other lines of thought, subclinical paranoid schizophrenia.

4. *Psychopathic Personality.* Since it is probable that the great majority of semi-responsible individuals fall into this psychopathic personality category it may be worth giving several examples of the group which is characterized according to the *Statistical Guide* used by New York State's Department of Mental Hygiene, "by emotional immaturity or childishness with marked defects of judgment and without evidence of learning by experience. . . . Special features in individual psychopaths are prominent criminal traits, moral deficiency, vagabondage and sexual perversion."

It would be a great mistake to suppose that all sex offenders are psychopathic personalities. Many persons who exhibit none of the characteristics of this disorder are convicted of sex offenses, largely because of the malice of their associates. A considerable proportion of convicted sex offenders most probably, in the light of Professor Kinsey's recent studies, must now be considered "normal sex deviants."

The psychopathic personality is a reckless one, but if the pattern exhibited shows frankly manic traits, a psychotic diagnosis must be made.

Several examples of psychopathic personality may be cited. Although it is not taxonomically significant, the writer has selected one which came into difficulty with the law because of alleged fraudulent tendencies, another in whom alcoholism determined his legal contacts, and a third whose arrests occurred in connection with sex.

The first individual came to the writer's attention in the course of an investigation conducted by legal authorities, which resulted in the necessity for the appointment of a trustee. In the course of attempting to guide the confused affairs left by the management of this person, it became apparent that his capacity to make judgments was grossly interfered with by an irresistible desire to prove to himself that he was an "operator," a big shot and, in general, the natural center of attraction. In grossly conflicting situations, he identified himself with the hero of any narrative whether this were an account of the self-abnegation and wisdom of a religious leader, the unconscionable disregard of others of a gangster or the romances of a suave and accomplished Don Juan. He had been married and divorced several times. His personal habits were ostentatious but, chameleon-like, he would momentarily assume the guise of a prosperous business man or slip into the character of a "small-time" chiseler. Evidently his grandfather had been relatively successful as a business man, as was his sister upon whom he had been forced to depend, of whom he was more or less unconsciously envious, and whom he was trying to supplant. This man's emotional immaturity prevented him from understanding the social implications of his acts; and his anxiety to attract attention by the only method at his disposal—the accumulation of money—had led him to associate with persons of apparently dubious intentions in order to achieve emotional satisfaction as quickly as possible. In the effort to attract attention such a person may very well seek to dominate a trial situation to his own detriment, even though he knows that the attraction of interest to himself will probably result in his punishment.

The second person, the beneficiary of a trust fund, had become a nuisance to his bank which referred a number of his requests for extraordinary funds to the writer for determination as to their reasonableness. He was the medical graduate of a prominent educational establishment and on the medical staff of a good hospital. Here he conducted himself with acumen but with periods of such apparently inexplicable erraticism as to lead his superior to suspect drug addiction. Though his less intimate colleagues were unaware of his activities and considered him quiet, reserved and courteous, in the course of trips he "lost" all his luggage (it subsequently developed that he had disposed of this to obtain extra funds), and became embroiled in a variety of fracases in houses of

ill repute, in one of which he was permanently crippled. He was asked to move from his hotel and went to live in the house of a complacent veterinarian where he became a general nuisance by sitting up for long periods at night in a transparent but vague attempt to attract the sympathy of the lady of the house. In this longing for inclusion in a family structure, no approach was made on the basis of sexuality, and he was equally anxious to engage the master of the house in convivial practices. Occasionally, while in conversation with this family, he would fall into an apparently inexplicable stupor without having had more than one or two drinks. The nature of these attacks became apparent upon the occasion when he was discovered in such a stupor in the bathroom (the tub having overflowed) with empty containers of various assorted barbiturate compounds on the floor.

This man's brush with the law came one morning when the veterinarian found him in one of his kennels, from which he refused to emerge, but from which he would bark, when the veterinarian's clients arrived, saying, "Bow wow, I am a dog, I belong in a doghouse." Extricated by the police and confined behind bars he soon resumed his polite and slightly melancholy customary appearance and was released. He continued a long pattern of bizarre experiences which variously included alcoholic or drug bouts with assorted hypnotic drugs, or combinations of these, with or without alcohol, and his behavioral difficulties also included irregular sexual attachments. While this man's essential difficulty appears to have been his emotional immaturity, he evidently was too repressed to give expression to this without the aid of artificial disinhibiters, under the influence of which his search for emotional gratification assumed a traditionally reckless character.

The third individual, also the beneficiary of a trust fund which had been set up by a living relative who had tired of his importunities, bad debts and personal complications, functioned in a customary habitat of cafes and airfields. Arising late, he spent his time making new acquaintances among the bibulous patrons of the former, but never became more than mildly elated himself. He had served in the air force, from which he had been cashiered. He occasionally worked for air transport concerns and owned his own plane which he flew with circumspection. He maintained a small, fashionable apartment which generally presented a changing scene of one or more fashionable ladies or gentlemen, in whom he had a

frank, sexual interest. He was an incorrigible liar and his associates generally left him as soon as his funds ran low. Although he knew the risk he ran by his choice of companions he did not seem to learn from experience. Although his debts increased he did not get into serious difficulty until, for fear of blackmail, he neglected to explain that certain checks were forged by one of his estranged male companions instead of by himself.

To recapitulate, the psychopathic personality is characterized "by emotional immaturity, with marked defects of judgment and without evidence of the ability to learn by experience." Such individuals may present alcoholism, drug addiction or sexual peculiarities, but these phenomena, do not in themselves constitute the essential features of the psychopathic personality and this may occur without them.

5. *The Psychoneurotic.* Psychoneurotic individuals probably do not themselves form any considerable proportion, as defendants, of the semi-responsible individuals with which the law has to deal. Probably a larger proportion of such cases appear as complainants in the form of "cranks," though more persons ordinarily classed as cranks belong to the frankly psychotic category of paranoid schizophrenia. Although a psychoneurosis is primarily considered a psychic disorder, various degrees of emotional disturbance characterize psychoneurotic individuals. In these emotional disturbances, abnormal degrees of anxiety or fear are encountered. Of course, anxiety and fear appear in a great variety of conditions, and if evidence of serious disorganization is present, the diagnosis which has to be made is that of a frank psychosis.

Psychoneurotics are not now recognized as irresponsible, except in some instances, and then only by virtue of the irresistible-impulse test. Medically speaking, many are semi-responsible. Usually these persons are those who suffer from the inability to rid themselves of a dominating idea or emotional state evoked by rather specific circumstances. The abnormal features of the behavioral pattern of the psychoneurotic usually occur in a rather circumscribed sphere and have a repetitious nature. Some authorities believe that the fundamental causative pathology of psychoneuroses may disappear, but once the abnormal behavioral pattern is established it may continue long after the disappearance of its cause.

Some psychoneurotic patterns, such as the compulsion to avoid stepping on cracks in the sidewalk, are reminiscent of the behavior of children but differ from this in that when children are prevented from performing such rituals they do not then show the extreme panic and fear which the psychoneurotic exhibits. The psychoneurotic does not really believe he will "break his mother's back," if he steps on a crack in the sidewalk; but if he inadvertently does so or is made to do so, he is seized by uncontrollable terror which incapacitates him or forces him to engage in an elaborate prophylactic ritual to avert the vague but overwhelming horror he feels will result. The psychoneurotic may do some very bizarre and rash things when struck with terror and is even likely to excite the suspicions of the local *gendarmerie* by his peculiar behavior and the lame excuses he invents to explain this.

Summary on the Nature of the Semi-responsible Individual

Unlike the frankly psychotic person, the semi-responsible individual does not appear incomprehensible to the layman. *Inter alia,* if one finds difficulty in being able to find another person's emotional behavior intelligible in quality, one should suspect the possible existence of a psychosis. (Quantitative abnormal reactions are less significant.) Semi-responsible individuals evoke a range of reactions in their environment. The semi-responsible individual may, and often does, seem stimulating, interesting and plausible. On the other hand, he may give the impression of childishness, perversity or of being merely obnoxious. A layman is more likely to consider a ludicrous semi-responsible individual far "crazier" than a dangerous schizophrenic. It is just as important to recognize and afford legal protection for the capacities of the semi-responsible person as it is to recognize his incapacities.

Suggested Operational Procedures for Dealing with the Semi-responsible Individual

The implicit question now arises: "So what, what do we do about it?"

The fundamental hypothesis upon which the writer's position is about to be based is that the individual's ability to assume responsibility is a capacity which varies over a continuous gradient from poles which, by any standards of human conduct, are recognized as responsible to irresponsible. In the territory between

these poles, different individuals possess various capacities or degrees of incapacity; and any given individual is endowed with varying degrees of capacity to deal with problems of social relationships of various degrees of complexity. The writer believes that the validity of this hypothesis can be established according to the teachings of any of the existing schools of psychiatry. If this hypothesis is valid, it would appear reasonable to apply the same principle to impaired psychic capacity as is applied to impaired visual capacity, if the individual expects to engage in an area of activity such as driving a car, where the particular incapacity becomes a social hazard.

However, since the nature of a psychic incapacity ordinarily renders the individual incapable of recognizing its existence, the social system must undertake to institute the necessary compensatory measures or controls as the case may dictate. Moreover, if the original hypothesis is valid, then the request made by the legal profession that we place a particular individual's capacity or lack of capacity to assume responsibility in its approximate position on this scale is also a valid one. On the other hand, a request to determine whether such an individual can distinguish between right and wrong, or to ask whether he knows the nature, quality and wrongfulness of his act may force the physician not only to employ an immaterial frame of reference for his answer but ignores the medically obvious fact that different individuals "know" things in different degrees and with a variable amount of vividness and awareness, and that they have very different comprehensions of wrongfulness.

The essence of the semi-responsible state is an incapacity to evaluate the meaning of a situation from intellectual and emotional points of view in the same manner and to the same degree as individuals chosen from the normal mode would. This incapacity is moreover viewed here like any other incapacity, that is as of a permanent or temporary nature, as congenital or acquired and as compensable, partially compensable or uncompensable. Viewed in this light, it is apparent that the ability to distinguish right from wrong and to know the nature of the act varies in individuals and, if strictly interpreted, forces the law to acknowledge the competence of many frankly psychotic individuals, since few do not have some comprehension of these matters. Conversely, there are few "normal" individuals who have complete degrees of comprehension

of the nature of their acts or of the essential social significance in which the wrongfulness of such acts consists. The expert witness is consequently forced to interpret this partial comprehension, which most of us have, in accordance with his own experience, and, unfortunately also, with regard to his own interest. The result is, at least, highly variable and often unpredictable.

A strict interpretation of the "irresistible impulse test" would force most courts to adjudge the great majority of persons incompetent, since there is good philosophical precedent for questioning whether any individual possesses the full degree of volitional freedom which this test would require the responsible person to possess.

Such considerations are however not worth pursuing in detail here. But a peculiarity in the evaluation of values which attracted the writer's attention not so long ago may be cited.

In one of the writer's recent psychosurgery projects, the psychological discipline was engaged in attempting to determine whether the intensity of a patient's anxiety was altered following operation. The workers in this discipline developed an "anxiety inventory" which included, among other things, the recording of the degree of emotional reaction reported by patients to a variety of hypothetical stimuli ranging from such things as being confronted by a black cat to finding oneself in front of an oncoming train or in a falling elevator. The total score took into consideration the number of stimuli-producing emotional phenomena as well as the intensity of these reactions. *En passant,* it may be said that it was found that the anxiety score was decreased following operation. What attracted the writer's attention, however, in going over the raw data of the experimenters in the discipline, was that the intensity of reaction to such stimuli often did not follow the customary pattern of gradation. Thus, the black cat might be fully as effective in evoking terror as an oncoming train. Moreover, in some instances, there were surprising and often incomprehensible postoperative shifts in the relative importance of emotion-producing stimulus-situations. Let us put the matter another way. A psychoneurotic with a compulsion to touch every doorknob he passes knows full well that his act is a public nuisance but it is of less importance to him that he run the risk of an altercation with the policeman on the beat than to leave any of the mystic doorknobs untouched.

The writer hopes he has made the points: First, that the semi-responsible person's sense of value is different from that of what is sweepingly and euphemistically referred to as a normal individual; and, second, that there is an imperceptible gradation among individuals. The third point to drive home is that any individual possesses a variable degree of ability to deal with problems of social contact of varying degrees of complexity. Here is an illustration. Among marines in World War II, the number of psychiatric battle casualties was relatively lower than in the army. This, however, is a relative matter. As marines were placed in positions of greater and greater stress, psychiatric abnormalities began to show up in some marines and, on Iwo Jima, some psychiatric casualties did occur. One may admire our marines as men of steel, but even steel has a limited tensile strength. One must consider not only the relative responsibility of the individual, in regard to the comparable ability of other persons in this regard, but, more particularly, in regard to the significance which the particular situation in which he is placed has for him.

Let us assume that the legal structure be of such a nature as to admit of the possibility of the state of semi-responsibility, in addition to those of responsibility and irresponsibility. And let us further assume that, in a particular case, the expert testimony is without exception of the opinion that a defendant was semi-responsible. The question arises what should be done? The writer has put this question to competent authority whose answer was, "In that case, I would hate to be the judge."

The writer would not, of course, raise this question without having some sort of answer for it; but the answer is not his, but that of Dr. John Whitehorn, professor of psychiatry of the Johns Hopkins University School of Medicine. To quote Dr. Whitehorn's answer to a questionnaire sent him for the United States Public Health Service, he says, "In Maryland we are making some progress by a different approach to the legal question of responsibility, using the idea of deficiency in controlling behavior (by reason of either intellectual or emotional deficiency) and lack of *responsiveness* to the social control of behavior through customary moral standards and sentiments (or through punishment or implied threats). For 'defective delinquents' in either the intellectual or emotional sense [and here the writer believes Whitehorn would include the great majority of persons the writer has spoken of as

semi-responsible individuals] we are planning (in the legislature) a special institution with indeterminate sentence. The realistic question is not the negative one of 'irresponsibility' nor uncontrollable impulse but the positive one, 'What kind of community control is necessary for the individual in question?'"

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SOME RECENT TRENDS IN ORGANIZED PSYCHIATRY*

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This discussion will be an informal survey of some of the important activities and problems that are present concerns of American and world psychiatry.

First one may consider the whole matter of medical education. A conference about to be conducted at Ithaca, N. Y., is to consider the subject of "Psychiatry in Medical Education."** It is going to cover, as a matter of fact, a discussion of the whole basic philosophy of medical education. It is oriented about something which the writer believes has never been the center of such attention before, the question of what the public demands of a doctor in the handling of psychiatric problems.

This conference is the fourth of a series of professional conferences by the U. S. Public Health grants. Previous funds went to the psychiatric social workers, to the nursing organizations, and to the clinical psychologists, and now they go to the American Psychiatric Association, to discuss training and education. The psychiatrists naturally imitated the best they could find in the other conferences, and added the further point of what the doctor graduating from medical school should know about psychiatry. It was decided to start out by determining what the public demands in terms of help and aid and understanding of emotional conditions.

The writer had the pleasure recently of reviewing the history of medical education and reading Abraham Flexner's very fine dissertation written in 1910, and another in 1925. He found that whereas Flexner was responsible for raising standards of medical education, those standards were always set from the scientific viewpoint, from the point of view of the best-educated people and what they thought should be done, from the standpoint of the selection of those who should enter medical schools, from the relation of medical schools to the hospital and university, and from the financial standards of the medical schools. Those four points were those Flexner considered of primary importance in judging whether a school could deliver good doctors.

*Address at the Bimonthly Conference of the New York State Department of Mental Hygiene at Gowanda State Homeopathic Hospital, Helmuth, N. Y., June 19, 1951.

***Psychiatry and Medical Education.* 1951 *Conference.* American Psychiatric Association, publisher. Washington, D. C. 1952.

A lot has happened since 1910. Of the 450 medical schools which came into existence from 1750 to 1900, there were 155 still surviving in 1910. There was one doctor for from 300 to 500 persons throughout the whole of the United States, and, according to Flexner, most of them were not very good doctors. There were, of course, some very good doctors, but the vast majority were graduates of the commercial proprietary diploma mills which made up the majority of the 155 medical schools. So it can be seen that asking people what they want of a doctor is something of a radical departure.

This Ithaca conference is a working group made up of deans of medical schools, and professors of all the specialties. About 50 per cent of the entire group will be psychiatrists. It is hoped that the end-result will be not more and greater departments of psychiatry in medical schools, but rather that the whole profession and all of the departments of the medical schools—including surgery, obstetrics, medicine, gynecology, and so on—will join with psychiatry in assuming the burden of teaching the four-year student in medicine what he should know so that he can go out and be acceptable in the community.

A second conference will occur approximately 12 months after the first, and will be concerned with graduate and postgraduate psychiatric education. The writer imagines most readers will be more concerned with graduate and postgraduate types of psychiatric training and education and ways of keeping up with the profession as the years go by; but the 1951 conference at Ithaca is restricted entirely to the first four years of medicine.

It was found impossible to have a discussion type of conference and expect to come up with anything very solid, unless there was a relatively small number of participants. There are actually six discussion groups of 12 to 14 each, with 80 to 85 persons in all expected at the conference. The writer believes the organizational scheme is very good and is of importance because it may result in a great many more people becoming interested in psychiatry. It may turn out that graduates of all medical schools will assume a much greater psychiatric load in the community than heretofore has been the case, and that of course will be a great help to all of us in psychiatry itself.

The general conference discussion topic is divided into five subjects with a "preparatory" commission for each. The first con-

cerns community needs as a guide to medical education. The second has to do with the student who comes in, what he is like when he gets to medical school, what happens to him in four years, whether his experiences make a better man out of him or not, whether he changes his attitude, and whether he becomes more mature. The third subject concerns the medical school as a setting, something of its historical perspective, and what the medical school is like now. Obviously the schools are changing, the curricula are constantly being revised. Dr. John Romano is head of the "preparatory commission" on the medical school as a setting. The fourth topic, in charge of a preparatory commission headed by Dr. Maurice Levine of Cincinnati, deals with the content and material which psychiatrists would like medical school students to know about psychiatry. The fifth topic is the integration of psychiatric teaching throughout all the different medical school departments.

The interesting results of the inquiry into the community as a guide to medical education are worth discussing in some detail. They are somewhat shocking to some of us who do not know what the public thinks about doctors as a whole. Some of the reactions were reassuring, but the great majority were not.

Among the doctors who are interested in the emotional needs of patients, we in psychiatry, including those in hospital work in the organized state systems, probably are not subject to the criticism, because we are really spending our time on this subject. But for general information, here is some of the material gotten together this year on this new orientation as to what a medical school should do.

The public was not asked what medical education should consist of, but a questionnaire was sent out to some 3,500 people—community leaders, a large group of different kinds of people.

The commission on this first question, headed by Dr. Kenneth Appel of Philadelphia—who had a full-time sociologist working as a staff man with him to analyze the data—sent out a questionnaire which had something like 10 questions on it. The first was: What are the common emotional needs which you recognize as existing among the individuals in the particular area or work that you represent? And following is a group of answers which came from these people representing the public. None of these came from physicians themselves or from psychiatrists; they came from an-

thropologists, associations of various groups of people, bankers, clergy, college and university presidents, corporations (that is, commercial and manufacturing corporations), correctional institutions, family agencies, national agencies, psychologists (most of them clinical psychologists), schools of social work, and sociologists. Those people sent in the great majority of answers.

These are the things they listed as the public's emotional needs:

(1) "The public needs health and economic security."

(2) "People are in need of loving and supportive relationships. Most people, so far as one can tell, are lonely."

(3) "There are feelings of insecurity, especially among young people, because of the uncertain future."

(4) "There is a cluster of emotional needs around family relationships; husband-wife adjustments; parent-child relationships; needs for acceptance; friendliness in interpersonal relationships; needs for acceptance of one's attainments in a highly competitive cultural atmosphere, together with management of fears, hostilities and defensiveness in connection with such relationships."

(5) "People are suffering from anxiety and fear, based on war danger, rising prices, and a nameless feeling of insecurity arising out of the sudden perils constantly cropping up; the Korean War, for example, space ships, the atom bomb, and so forth."

(6) "There is individualization of personal conduct resulting from urbanization; the economic and social emancipation of women, the diminishing importance of religious and secular philosophies. The remedy for most of the difficulties in this area is outside the specialized concern of the physician as such."

(7) "There is vocational and professional insecurity, and competition for status."

(8) "There is need for love and security, and for recognition."

(9) "People need to feel more adequate, more sure of themselves as parents; to give and receive more love in family relationships; to feel that family life is supported by the community; and to relate themselves more significantly to the community."

(10) "The emotions most frequently observed relate to feelings of fear, hostility, dependency, frustration, confusion, inadequacy, all contributing to a general and all-pervasive feeling of insecurity. People are fearful and anxious about many things, but often cannot verbalize these feelings, and as is well known, many of

these feelings are expressed in physical symptoms as well as in emotional instability and frank mental illness."

Those 10 illustrations are a sort of summary of the ways in which this representative group answered, the way people in this country are feeling.

The next question asked was this: In what specific ways could the doctors help with these emotional needs? Specific answers as well as general answers were given, and some of the replies are briefly as follows:

(1) "A more general knowledge of psychiatry and a greater realization of the prevalence of emotional problems are needed."

(2) "Assembly-line impersonality found in so many doctors' offices should be minimized."

(3) "The doctor should become a friend and counsellor, take time to be a good listener."

(4) "Less specialization and more general practice are needed."

(5) "Continual sympathy and understanding are needed."

(6) "Doctors could help with the feelings of anxiety by offering some kind of a system which would give promise of lowering patients' economic anxieties."

(7) "A sympathetic understanding of the patient as a human being is called for."

(8) "Doctors could help by having a better understanding of the social sciences, and thereby a greater sympathy for the individuals who seek their help."

(9) "Doctors could help guide youth in the 'teens."

(10) "Doctors could be trained to recognize emotional disturbances that lead to delinquency and crime."

(11) "Doctors could help greatly with the emotional needs of their patients by referring their clients to family service agencies who, within the areas of their competency, could act helpfully."

(12) "Doctors could help by being aware of finances and of what vagueness about medical costs can do in the way of arousing anxiety."

(13) "They could help by knowing, using and respecting other community resources."

(14) "They could help by accepting the patient as an important individual in his own right."

(15) "The doctor could help through establishing more intimate rapport with patients. This cannot always be done in the

professional atmosphere of the examining office with its clinical paraphernalia. There needs to be some return to home visits, now almost totally abandoned, with a view to establishing contacts with patients and their families."

There is nothing new there, of course, but it is interesting that the public has come forward in each one of these answers expressing those views. These comments and answers represent a large group, the sentiment of a large proportion of all these people whose opinions were asked.

There were several other questions, and some of the replies to these were not nearly so critical. One question was: When the doctors failed, to whom did you or others turn for help for emotional needs? Typical replies were:

(1) "Clergymen, teachers, friends, clinical psychologists and others who pose as specialists in emotional problems."

(2) "People whose common sense and intelligence we respect."

(3) "Friends, clergymen and occasionally psychotherapists, some of whom are probably of the quack variety."

(4) "No other sources help as much as the doctors because of the respect and confidence the public has in them."

(5) "In the heart case of a neighbor (that is, in the case of a neighbor with a heart attack) I once turned to our local fire department."

(6) "I turn to quacks; that is, spiritualists, religious cults, and so-called mental therapists."

(7) "Ministers and school teachers."

(8) "Frequently to psychiatrists."

(9) "Another doctor usually, with the same results."

(10) "I have found Christian people turn to the minister. I think many people have turned to the physico-manipulator."

(11) "Many go to lawyers and ministers, and in that order."

(12 "To Alcoholics Anonymous, religious leaders, social agencies, psychologists and psychiatrists."

(13) "Ministers, psychiatrists, and various sooth-sayers, but without a high rate of success."

(14) "Most people seem to accept the situation as one which cannot be solved, some look to religious sects and some turn to quacks."

(15) "Especially in the matrimonial field, social workers and lawyers."

Next was the general subject: What defects in the medical education of doctors come to your mind? And what suggestions do you have regarding additions or changes in the training of doctors in areas of emotional problems? This was answered usually by people who said that they did not know too much about it; and the writer doesn't think we learned a great deal from that question.

Question No. 10 was: In your opinion, how do the doctors as a group fit in with the community needs aside from their role as medical practitioners? Here the answers were fairly evenly divided. Thirty-six persons felt they fitted in fairly well; 61 said that they did not fit in well in the community because they were usually too busy, and 22 others said some did and some didn't.

These topics should give an idea of the kinds of things that the conference on education must consider; the variety of needs of the community that the doctor, having finished four years of medical school work, going out, interning, and possibly going into the community as a general practitioner before he specializes, must know something about.

One can see that is going to have quite an effect on medical education if training of doctors is attempted with this in mind. Since the conference is made up of approximately 50 per cent psychiatrists, with some 20 deans of medical schools present; and, since this is being done in co-operation with the Association of American Medical Colleges representing the deans; and because, in addition, a good many other specialties are involved with a small sprinkling of fellows from the social sciences, one may feel that this conference is laying on the table better than has ever been done before, the need for a more comprehensive practice of medicine, the need to revamp the practices of our medical schools; and the writer suspects that it will have very far-reaching consequences.

We may now consider briefly a few things which are happening with regard to what we might call international psychiatry. From contacts with 20 or 30 different nationalities in Geneva two years ago at the World Health Organization, it seemed that psychiatry as a whole is something strange to most of those people. The people from India were not interested at all. They said, "We don't even know how many people are born in India in a year. We don't know, either, how many die or from what they die. Until we get better vital statistics, we are more concerned with keeping body

and soul together than we are in any minor situation such as mental and emotional instability problems, or even psychotics."

They do have a few mental hospitals in India. The superintendent of one of them was over here, Dr. Swami. He is from Bangalore; and he has been in New York for quite a while.

I have recently become acquainted with a young Dr. Ratanakorn, who is superintendent of a mental hospital in Bangkok, Thailand, and who is now studying in Philadelphia this year. He was made a corresponding member of the American Psychiatric Association this year.

Generally speaking, though, in organization of psychiatric facilities around the world, Europe is most important to us; and American psychiatrists generally have some acquaintance with what is being done in mental hospitals there and what is going on. But the great bulk of the European population—three-fourths, perhaps—is not exposed to psychiatry, and Europe has other problems which right now seem to Europeans to be more important.

The attitude of the World Health Organization toward its own Department of Mental Disease is that for the time being, more can be accomplished in psychiatry indirectly than directly. The feeling is, with small amounts of money available and small numbers of personnel available throughout the world, psychiatry can do more to help other departments get their work done than any other thing, and the writer thinks this is right.

For example, the most important disease in the world—one in which much psychopathology is involved as well as neuropathology—is malaria. There are something like 300,000,000 people in the world who have malaria. When one thinks of 300,000,000 people with malaria and all the deterioration of the brain and the apathy, and everything else, that goes with it, it can be seen that that is the big psychiatric problem and it somewhat dwarfs our own problem of 700,000 or 800,000 people in this country in mental hospitals.

Actually, the greatest handicap to progress in stamping out malaria in the world is not the absence of a specific remedy, or of mechanics, or the lack of money; it is rather to persuade the people involved to accept what we know about malaria in the way of treatment and in the way of prevention. The matter of overcoming superstition, of breaking down obstruction, of spreading education, which is in the area of human relations, constitutes the real obstacle. That is the answer to the question: "Why don't you

psychiatrists help us in that problem? Progress of that kind is better than trying to get a few more mental hospitals in India, or some place like that." And the writer thinks that is right.

Tuberculosis again presents the need of persuasion to get the people of the world to accept modern treatment and preventive methods; everybody understands that. The venereal disease problem also involves the question: How are you going to get them to accept treatment? It has been brought out repeatedly that some of our propagandizing has had the opposite result to that which was anticipated. For many years, venereal disease posters attempted to scare people out of catching venereal disease and scare them into going to see a doctor. It was discovered that nevertheless the incidence of venereal disease increased in spite of everything, until finally there came a turning point, when it began to go down. It did not go down until penicillin and the sulfa drugs came along. In other words, the rate of new cases did not go down until the danger diminished, strangely enough.

The fact that people ceased getting new cases when the danger was less is contrary of course to the original assumption. It used to be thought that if you could make people scared enough, they would stay away from dangers; but the contrary seems to be true. It seems as if there is something that makes people—in paradoxical fashion—do exactly the opposite. There are, of course, many factors in the trend.

The World Congress for Mental Health is conducting a meeting in Mexico City in December 1951. There have been quite a number of international meetings of world psychiatry. There was an international neurological meeting last summer; and there was an invitation recently from India to join in a conference on psychotherapy, at the same time, unfortunately, as the meeting in Mexico City. So much for the international aspects of psychiatry.

Another interesting thing that is happening these days has to do with the general administrative problems of standards, nomenclature, reports and statistics. I have learned since I got out of private practice in 1942 (and I practiced in New York State for some 10 years before that) that administration is not such a dry and unimportant subject as I used to think. In fact I have discovered that the man who administers his own life successfully is the man best fitted to do the same in the psychiatric and other wards in a hospital. But this is a very practical matter, and most

of us have to build a framework in which we can work. However, some of us have administrators work for us, and it is up to them to build that framework in which we can do our professional work.

But in any case, the time has come when we in psychiatry and in mental hospital work have got to deliver something in the way of tangible proof and evidence that what we are doing is worth while. The states of California, Minnesota, New York, Oklahoma, and quite a few others, have had a good many increases in appropriations; and some states which received those appropriations about five years ago are now being called on the carpet and are being asked to tell what has happened to those increased appropriations since 1946. And they are being asked, "Can you demonstrate to us that what we have added to your appropriations has been used to accomplish something worthwhile?"

What can you say? It was possible to dig up a few pieces of evidence—mighty few, in fact—and I want to say that next year we may not be able to persuade them to continue those appropriations. My office had a good deal of information which we could send. I was called by the office of the governor of California while I was in Arkansas. They said they had to have this stuff. This was Saturday, and they had to have it by Monday. We got a good deal of it to them by that time. The governor was for the program, but he could not persuade the legislative budget committee.

There is fortunately a movement to get ready statistics that really mean something, that can be used to show results, and that can be compared from one hospital to another. The American Psychiatric Association is coming out with a new set of standards. But the word "standards" sometimes leads to the general concept of standardization. If one means by "standardization" the tendency to make things more and more similar everywhere in the country, this tendency must be watched out for, because we certainly must not run into the evil effects of institutionalism, even though we have standards. In other words, we have got to leave to every group and every institution, the opportunity to expand in its own way. Minimum standards are, therefore, perhaps desirable; but from that point on, we have to leave the field open.

The American Association for Mental Deficiency is considering the creation and adoption of standards for the schools for the mentally defective. They had a symposium recently in New York, to which Dr. Storrs, Dr. Ralph Chambers and I—from the American

Psychiatric Association office—were invited to speak on that general subject, which we did.

Another thing to be mentioned—and one which the writer thinks is of real interest through the country—is the actual work in the American Psychiatric Association's office on the general subject of hospitals and mental hospital service. The great need for people in hospital work to understand each other, to know what is going on around the country and to back each other up in various parts of the country, is amply demonstrated by so many things now going on.

The hospitals in New York State are, generally speaking, in much better condition than those in most states throughout the country. New York psychiatrists are probably not so acutely aware of the critical situations which exist and the rather desperate things that are happening in the rest of the country where people are in less fortunate situations, yet New York has its own problems. It is necessary, therefore, to have some organization, such as the Mental Hospital Service of the American Psychiatric Association, to pull the doctors together and pool available information, not only as to experience but as to what is actually going on at the time, so that people in the various parts of the country may be informed. If this is done, a central group, such as that at my office, will be able to send out material where it is needed, or give out information and pass on what we have. That service is developing into something that is becoming recognized.

We got out a little pamphlet about a year ago called "On the Positive Side." It lists nothing but the applications for the Mental Hospital Achievement Award. Obviously, the hospitals that applied for that award are putting their best feet forward, reporting things that they have done of which they are proud. There are fifty-odd statements from fifty-odd hospitals in that little booklet.

Albert Q. Maisel who was responsible for the rather bad publicity which mental hospitals got in *Life* five years ago, called me within the last two days and said that on the fifth anniversary of the appearance of that article he had asked the editor of *Life* if they wanted another article showing what had happened in that field within the past five years. This time he ran across the association's book and gathered these statements from the various hospitals to show that a good deal had happened on the positive side.

The editors agreed to have him write this article. He is now going around the country and collecting further data.*

It is important to us that scientific and professional leadership such as the Mental Hospital Service be successful, because as you may be aware, over a period of 100 years since Dorothea Lynn Dix and others stirred up the country, there has been a series of ups and downs. Since the war there have been newspaper campaigns, and the well-known exposés. Through such things, the public in various parts of the country gets stimulated and excited, rushes in, and appropriates money. Then five years later, something else interests the public, so that there is a slump, and money is not appropriated. Those of us who are trying to operate hospitals then have a pretty tough time of it. The writer does not know of any real cure for that outside of well-sustained, year-in and year-out, professional leadership, particularly in regard to the collection of information, focusing attention on such important things as statistics and reports to show what is going on.

The association's hospital service needs 400 subscriptions out of some 700 hospitals to make the thing go. There are very good plans for making available to the states a good deal of educational material for the benefit of hospital staffs, such as, for example, motion pictures, records, and other things used by some of our leading people in teaching situations.

In addition, *Mental Hospitals*, the monthly publication of the Hospital Service, promises to develop into a first rate journal. Here for the first time we shall have a publication devoted exclusively to the administrative problems of mental hospitals, which as we all know differ in many ways from the problems of the general hospitals. The American Hospital Association has by and large filled the need for information in the general hospital field. We believe the A. P. A. Mental Hospital Service can fill this need in the mental hospital field.

The American Psychiatric Association has authorized us to seek funds for the preparation of a manual on mental hospital construction and equipment. Hundreds of letters come to my office asking about what the current ideas are on hospital construction, what things are being done for old people, and making other special requests. We are hoping to get money in the next few months to collect material on this subject and produce a manual eventually.

*"Scandal Results." *Life*, November 1951.

These are forms of service which the American Psychiatric Association Mental Hospital Service will develop.

The last topic for discussion—and I am just picking five subjects chosen for possible interest—is related to what Dr. Small was talking about this morning.* His subject was of interest to me because, as I say, I find so many claims being made about being able to do this and that. Particularly, there are the extravagant claims of people with regard to what psychiatrists can tell the government as to how to run the government, how to handle our international affairs, how to settle the divorce problem, and all the rest, exaggerated claims in a great many instances. We need to validate our theories and evaluate our treatment.

I want to leave with you the words of a very wise person on the general subject of medicine as a science. I think this is the best existing summary of why medicine can be a science that has ever been written in any place. It was written in 1925; and as I go around the country I find an occasional person who has read it and who agrees that there is no better description of medicine as a science than this by Dr. Abraham Flexner in his book, *Medical Education*. I would like to read from that book because to me it is an inspiring thing.

I worry about myself sometimes because of constantly believing things of which I see no definite proof, and wondering how long I can keep on saying them when I am not at all sure I am right. How long can I have confidence in my intuition, I may ask, that this is the proper thing to do? The "art and science of medicine" is an expression we hear frequently. The art of medicine may be defined as the ability to handle the interpersonal relationships involved in medical treatment, but the science of medicine has baffled all of us. There has been an attempt to be too scientific and even to eliminate the art, which certainly we psychiatrists are not going to allow. On the other hand, we must be more scientific than we have been.

Dr. Flexner says in his book:

"From the earliest times, medicine has been a curious blend of superstition, empiricism and that kind of sagacious observation which is the stuff out of which ultimately science is made. Of these three strands—superstition, empiricism and observation—

*Small, S. Monthly: Validation of libido theory. PSYCHIAT. QUART. Pending publication.

medicine was constituted in the days of the priest-physicians of Egypt and Babylonia; of the same three strands it is still composed.

"The proportions have, however, varied significantly; an increasingly alert and determined effort, running through the ages, has endeavored to expel superstition, to narrow the range of empiricism, and to enlarge, refine and systematize the scope of observation.

"There is none of us, busy as we are, who cannot enlarge, refine and systematize what he observes.

"Superstitution is perhaps easily enough recognizable; but the line between an empirical and a scientific observation is not always so clear. That quinine cures malaria, that sunlight cures rickets, that morphine quiets pain, that mercury cures syphilis—these observations, being correct, may as such be termed empirical or scientific at will.

"A real difference can be made out only at the next step. Empiricism does not endeavor to penetrate more deeply, is not solicitous as to limitations—in other words, gets no further. The very soundness of an observation challenges the scientist; he is not content with a fact; he asks why, and how far? The scientist is therefore at once modest and active, conscious of the narrow limitations of achievement, seeking to establish larger and surer combinations, while the empiricist, practicing his rule of thumb, works disjointedly and tends to remain, in reference to any particular practice or observation, just where he is.

"The general trend of medicine has been away from magic and empiricism and in the direction of rationality and definiteness. To be sure, from time to time old superstitions revive or new superstitions spring up. Empiricism, sometimes blind, sometimes critical, is driven from one point only to reappear at another, often in connection with a genuine scientific advance.

"The history of thought is the fluctuating record of deliberate efforts to purge knowledge of both mystical and empirical contamination; but with the best will no one succeeds completely.

"In what sense, then, can modern medicine today be called a science? If the term 'science' is to be strictly confined to knowledge capable of quantitative expression and utilization, science would begin and end with mathematical physics—itself perhaps not of the final character supposed in the days before the coming

of Einstein. Chemistry and physiology would be sciences, in so far as they are reducible to physics and no further. Other disciplines, to which we now attach the name 'the social sciences,' for example, or agriculture, in which an increasing volume of systematized knowledge and practical art is, as in medicine, indistinguishably blended, would cease to be so called."

Dr. Flexner gives here a couple of definitions of science which I think are worth noting. He continues:

"Neither on theoretical nor on practical grounds can so narrow a use of the term be successfully defended. We do better, taking an historical view, to consider science as the persistent effort of men to purify, extend and organize their knowledge of the world in which they live."

He says, "For practical purposes, at any rate, science must be considered as simply the severest effort capable of being made in the direction of purifying, extending, and organizing knowledge."

He also brings up another definition with which I will close:

"To the foregoing discussions, objection might be made on the ground that, after all, the question is one of definition without practical importance. Without doubt, it is a question of definition, whether medicine be or be not classified as a science. But definition in this instance is far from being devoid of practical significance. If medicine is classified as an art, in contradistinction to a science, the practitioner is encouraged to proceed with a clear conscience on superficial or empirical lines; if on the other hand he is acutely conscious of a responsibility to scientific spirit and scientific method, he will almost inevitably endeavor to clarify his conceptions and to proceed more systematically in the accumulation of data, the framing of hypotheses, and the checking up of the results.

"There is a widespread impression that the scientific quality of medical education and medical practice is in some fashion dependent upon the part played by the laboratory. This is not the case. [This is the second, one may say, definition of science.] Science is essentially a matter of observation, inference, verification, generalization. The mind of Sydenham, interested in a sick child and humanely preoccupied with its cure, did not, in so far as it functioned scientifically, operate differently from that of Galileo, interested in cosmic physics. Both alike observed, reflected, verified, generalized."

I think that in psychiatry, as part of medicine, we should keep in mind the necessity to be both artistic and scientific, and we will have to develop some tools to measure our observations and to compare them. But generally speaking, I think that if we can keep this spirit of the definition of science which I have just read, we will proceed and make further advances. And further, I think we will be a lot more content with what we are trying to do.

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EFFECT OF SERVICE-CONNECTION ON PROGNOSIS IN PSYCHIATRIC WAR VETERAN PATIENTS*

BY WILLIAM BROWN, M. D.

The comparative response to treatment of psychiatrically ill "service-connected" and "non-service-connected" war veterans is a subject of broad interest, attracting the attention not only of psychiatrists in particular but of physicians in general. Prevailing opinion indicates that the award of monetary compensation for mental disability incurred in the military service has a definitely retarding effect on therapy; the belief is rather widespread that a pension serves to induce chronicity, encourage dependency, reduce initiative and suppress motivation. Statistical studies, however, if they exist at all with regard to this subject, are certainly uncommon. The purpose of this paper is to present the results of a follow-up study of 121 patients who were discharged in 1948 from the psychiatric wards of the Veterans Administration Hospital, Bronx, N. Y. The results will be related to service-connection and combat experiences; and some attention will be paid to subsequent hospitalization or treatment of veterans with service-connected disabilities as compared to veterans whose disabilities were not service-connected.

The study was begun in January 1951, the interval between 1948 and 1951 being considered adequate to permit conclusions as to improvement or recovery. Efforts were made to follow up 275 male war veterans discharged consecutively in 1948 (this does not include 33 patients who were transferred to the psychiatric service from the medical and surgical services for treatment of acute deliria or other transitory psychotic reactions and then returned to their respective wards). Satisfactory data, through interviews or questionnaires, were collected in 121 cases. The interviews, each lasting at least an hour and conducted by the writer, were obtained in 88 cases; when possible, relatives as well as patients were interrogated. The mental status was evaluated, and significant facts in the history of the interval were recorded. Questionnaires with adequate follow-up information were returned in 33 cases. All 121 patients were well known to the writer at the time of their hospitalizations; he was aware of the details of their illnesses.

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With this knowledge, an evaluation of their present conditions was made easier, and at the same time more accurate and dependable.

With one exception (a veteran of World War I, aged 67), the 121 patients are veterans of World War II; their ages range between 25 and 50 years; but most are in their fourth decade at this writing. Their periods of military service extend from six months to six years; 34 per cent have service-connected disabilities, and 19 per cent had engaged in actual combat.* All service-connected patients were in receipt of compensation. The duration of treatment in the hospital covers periods from one month to 16 months, but 43 per cent had less than three months treatment and 81 per cent had less than six months treatment; only 3 per cent had more than a year of treatment. Symptoms had been present from two months to six years. All patients were treated by psychiatric residents; 85 per cent of the patients lived in New York City or immediately adjacent areas; the rest came from upstate New York or from New Jersey or Pennsylvania; 52 per cent were married.

From an economic point of view all patients belong to the "middle" or "lower" classes; approximately 50 per cent of the patients were unemployed at the time of admission to the hospital. Of the total, 8 per cent had not completed their grammar school educations; 26 per cent had attended one or more schools for training under the "G. I. Bill of Rights."

At the time of hospitalization the extent of disability in 87 per cent of the patients was severe; in 13 per cent it was moderate. The degree of incapacity was a product of three factors—the severity of symptoms, the nature and gravity of the precipitating cause, and the strengths or weaknesses of the pre-morbid personality.[1] In estimating the present status of the patients such elements were taken into consideration as: (1) the improvement or disappearance of symptoms, (2) type of adjustment in economic, social and sexual areas, (3) capacity to tolerate stress, (4) accom-

*William C. Menninger in his book, *Psychiatry in a Troubled World*, New York, The Macmillan Company, 1948, roughly estimates the number of men who had combat duty as between two and three million.

At the peak of the war the number of men in the armed forces was in the neighborhood of 12,350,000. The army furnished about 8,300,000 of which 7,300,000 were enlisted men. (*United States Army in World War II—The Army Ground Forces, The Procurement and Training of Ground Combat Troops*, Robert R. Palmer, et al. The Historical Section, Army Ground Forces, Historical Division, Department of the Army, Washington, D. C.)

plishment of constructive aims and ambitions, (5) capacity for happiness and enjoyment of life.

The Veterans Administration Hospital, Bronx, N. Y., is representative of the increasing number of general hospitals that provide facilities for the care of patients with mental disorders. Its three-year program for the training of psychiatric residents has been approved since 1946. Modern psychotherapeutic methods are used; physiological treatments are available including not only electric shock, insulin coma and subcoma but also the various operations used in psychosurgery. The hospital offers a full complement of ancillary services, among the more important of which are the departments of psychology, social service, occupational and corrective therapy, vocational guidance, hydrotherapy and recreational therapy. The outcome of treatment thus represents the results of team work and reflects the "total push" efforts of the hospital as a whole.

Results and Conclusions

The results of the study are set forth in the table according to diagnostic categories prescribed by the Veterans Administration.[1] A perusal of the table will show that the cases of schizophrenia and anxiety reaction comprise a little more than half the total number of patients. The non-service-connected patients as a group showed the anticipated better response to treatment. Thus, 32 per cent of the non-service-connected cases recovered, but only 17 per cent of the service-connected cases recovered; 24 per cent of the non-service-connected cases remain unimproved, but 38 per cent of the service-connected cases continue unimproved. The numbers of improved patients in both groups are about equal; 44 per cent in the non-service-connected group and 45 per cent in the service-connected group.

Fifteen of the 23 combat veterans in the group have service-connected disabilities. Six (40 per cent) are unimproved, five (33 per cent) are improved, and four (27 per cent) are recovered. Of the eight non-service-connected cases, two (25 per cent) are unimproved, two (25 per cent) are improved, and four (50 per cent) are recovered.

The course of events for many patients after discharge from the hospital was characterized by relapse or recrudescence of symptoms. The road of rehabilitation is often steep and rocky, and its

Results of the Study

Diagnosis	Totals					Unimproved				Improved				Recovered			
	No. of Cases	%	SC	NSC	C	SC	NSC	C	F. T.	SC	NSC	C	F. T.	SC	NSC	C	F. T.
Schizophrenic Reactions	37	30.6	11	26	7	4	6	2(SC) ..	2(SC) 2(NSC)	6	11	2(SC) ..	5(SC) 4(NSC)	1	9	1(SC) 2(NSC)	1(SC) 4(NSC)
Anxiety Reactions	28	23.1	15	13	8	3	2	1(SC) 1(NSC)	1(SC) 1(NSC)	6	8	1(SC) ..	2(SC) 3(NSC)	6	3	3(SC) 2(NSC)	3(SC) 1(NSC)
Conversion and Dissociative R.	15	12.4	6	9	2	4	1	1(SC) ..	3(SC) ..	2	4	1(SC) ..	1(SC) ..	0	4	.. ..	.. ..
Depressive Reactions	6	5.0	0	6	2	0	0	.. ..	.. ..	0	3	.. 1(NSC)	.. ..	0	3	.. 1(NSC)	.. ..
Psychotic Depressive R.	2	1.6	0	2	0	0	2	.. ..	.. 2(NSC)	0	0	.. ..	.. ..	0	0	.. ..	.. ..
Involution Melancholia	2	1.6	0	2	0	0	0	.. ..	.. ..	0	1	.. ..	.. ..	0	1	.. ..	.. ..
Pathological Personality types.	4	3.3	2	2	1	1	2	.. ..	1(SC) 1(NSC)	1	0	1(SC) ..	.. 1(NSC)	0	0	.. ..	.. ..
Immaturity Reactions	12	9.9	3	9	2	2	6	1(SC) ..	.. 4(NSC)	1	3	.. 1(NSC)	.. 1(NSC)	0	0	.. ..	.. ..
Somatization Reactions	5	4.1	1	4	0	0	0	.. ..	.. ..	1	2	.. ..	.. 1(NSC)	0	2	.. ..	.. ..
Phobic Reactions	2	1.6	1	1	1	1	0	1(SC) ..	1(SC) ..	0	1	.. ..	.. ..	0	0	.. ..	.. ..
Obsessive Compulsive R.	2	1.6	1	1	0	0	0	.. ..	.. ..	1	1	.. ..	.. ..	0	0	.. ..	.. ..
Asthenic Reactions	2	1.6	1	1	0	1	0	.. ..	1(SC) ..	0	0	.. ..	.. ..	0	1	.. ..	.. ..
Others	4	3.5	1	3	0	0	1	.. 6(SC)	1(NSC) 9(SC)	1	0	.. 5(SC)	.. 8(SC)	0	2	.. 4(SC)	.. 4(SC)
Totals	121	100.0%	42	79	23	16	19	1(NSC)	11(NSC)	19	34	2(NSC)	10(NSC)	7	25	5(NSC)	5(NSC)
% of Totals			34%	66%	19%	38%	24%			45%	44%			17%	32%		

SC=Service-connected
NSC=Non-service-connected
C=Combat
F. T.=Further treatment

travelers not only have to contend with hazards of readjustment from without but are also subject to assault from internal disruptive forces arising from emotional conflict or instability, or from inherent personality defect. Psychotherapy, reassurance, support, encouragement given continuously or from time to time, may have to extend over a span of years and sometimes for decades. In the service-connected group of the patients 50 per cent had further psychiatric treatment in hospitals or in mental hygiene clinics or from private physicians. In the non-service-connected group, 33 per cent received subsequent treatment. These are impressive percentages and bear witness to the unstable psychological equilibrium of these patients, a psychological equilibrium so easily disturbed by the stresses of post-war life. In many cases the initial hospitalization is often only the first step in a series of many courses of treatment given in hospital, clinic, or by private physician. It is not uncommon for three or more years to elapse before permanent improvement or recovery. Service-connected patients are eligible for treatment in Veterans Administration mental hygiene clinics, but non-service-connected patients have to apply to community clinics which are frequently overcrowded, and have long waiting lists.

To turn for a moment to the schizophrenic patients, there are 37. Ten are unimproved, 10 are recovered (or at least asymptomatic) and 17 are improved. Examination of the clinical records shows that they are easily separated into two clear-cut groups. In the first group, containing 25 veterans, the illness had followed a progressive, relentless development, uninterrupted by significant remissions, yielding to treatment only with great stubbornness. Strong predisposing schizoid factors were prominent, manifested by extraordinary shyness, feelings of inferiority, long-existing ruminations about sexual problems, and masculinity-femininity conflicts. Ten patients of this group are unimproved, and all 10 are in chronic hospitals. Fourteen are slightly improved, barely enough to be out of the hospital; one is moderately improved; readmissions to the hospital are frequent. These patients lead marginal existences either at home, cared for by solicitous relatives, or alone, in furnished rooms. They live isolated, aimless, unhappy lives; they scarcely get along. They are unable to work, or they cannot hold jobs. They are suspicious, querulous, irritable,

hypochrondriacal; they suffer from diffuse anxiety; or they may be dull, indifferent, hallucinated or deluded.

In the second group of schizophrenics (12 patients), however, a more benign situation exists. Predisposing influences were less severe; brooding, solitary, seclusive, self-effacing individuals were not found in this group. Strong precipitating factors were often in evidence and symptoms appeared more precipitously—in one case explosively. Generally speaking, the patients exhibited the essential symptoms of schizophrenia but showed a tendency to exhibit them in the form of episodes; exacerbations and remissions were common. In the majority of cases the prognosis seemed good from the very beginning, and shock treatments were suggested only to hasten expected improvement or recovery. Changes in mood were often conspicuous, features of elation or depression occurring in five cases. In short, in the second group, disorganizing forces were less insistent, and bizarre phenomena less extensive, than in the first group. Nine of the second group have recovered; and two are much improved; and, coincidentally enough, the nine recovered cases were non-service-connected and the two improved cases were service-connected. In the 25 cases of the first group, 17 were non-service-connected and nine were service-connected.

This study lends weight to the proposition of Langfeldt[2] who distinguishes between true schizophrenia and schizophreniform psychoses; and it substantiates the conclusions of Kant[3, 4, 5] whose findings indicate that the prognosis in schizophrenia is likely to be favorable if there is an acute onset, if there are significant precipitating factors, and if there are distinctly affective features. Predisposing elements and a fundamental schizoid make-up operate for an unfavorable outcome. In the present small group of cases the duration of illness exerted a definite prognostic influence; the longer symptoms had existed, the less likely was improvement or recovery to take place.

There are 60 psychoneurotic patients in the writer's group. Twenty-five have service-connected illnesses; of these, nine (36 per cent) are unimproved; 10 (40 per cent) are improved and six (24 per cent) are recovered. Thirty-five are non-service-connected; three (8.6 per cent) unimproved, 20 (57 per cent) improved, and 12 (34 per cent) recovered. Hamilton and Wall[6] in their follow-up study of 100 psychoneurotic men discharged from the Westchester Division of the New York Hospital found 46 pa-

tients recovered, five much improved and 17 improved. Their patients with reactive depression and those with anxiety states responded to treatment best. Those with obsessive-compulsive neuroses responded least. The average length of hospitalization was eight and one-half months.

In the present writer's patients, there was an inverse relationship between duration of symptoms and likelihood of recovery. Persistence of symptoms was directly related to predisposing factors expressed in such terms as: emotional instability, schizoid traits, basic passive dependency, strong feelings of insecurity, immaturity, deep-seated feelings of inferiority, sexual inhibition. Many patients who did not improve had always been ineffective individuals; they had poor work records; they were unable to accept responsibility; were apt to indulge in alcohol excessively. Those combat veterans who are unimproved blame their illnesses entirely on their war experiences. They may tell "fixed" stories about harrowing battle engagements. In some cases the administration of sodium amytal will stimulate a spontaneous recital of these experiences. In general, however, with the passage of time anxiety symptoms showed a tendency to subside regardless of whether or not the patients received treatment; but there was no doubt that therapy hastened improvement or recovery.

The retarding effect on therapy of service-connection and receipt of a pension was by no means uniformly distributed throughout the various categories of psychoneuroses. The retarding influence, for example, was virtually absent in the writer's cases of anxiety reaction, in which 12 of 15 service-connected veterans are improved or recovered as compared to 11 of 13 non-service-connected veterans. In the group of conversion and dissociative reactions, however, the retarding effect was strikingly apparent. Of six service-connected veterans, none was recovered and only two were improved. In contrast to this poor record, four of nine non-service-connected cases were recovered and four were improved. Apparently, diffuse or "free-floating" anxiety in service-connected patients suggests a favorable prognosis. When the anxiety is fixed or invested somatically, or when conversion or dissociative symptoms appear, the prognosis may be less favorable. Conversion and dissociative phenomena were most apt to occur in passive-dependent, insecure, more or less ineffective individuals. Generally speaking, the hysterics, well defended by their paralyses and

sensory disturbances, were more placid than those with dissociative manifestations of fugues, "black-outs," stupor states, and amnesias. The latter led more turbulent lives and were more sensitive to environmental and emotional stress, so that their clinical courses were marked by numerous aggravations and ameliorations of symptoms.

Both service-connected and non-service-connected patients with character behavior disorders did poorly. There are no recoveries, and 11 of the 16 patients remain unimproved. Three are in jail, one on charges of murder. These character disorders embrace the various types of psychopathic personalities. They are subdivided into two groups which are: (1) pathological personality types, consisting of individuals in whom the major pathological deviation in the development and growth of the personality is characterized by such diagnostically descriptive terms as schizoid personality, paranoid personality, cyclothymic personality, inadequate personality, antisocial personality, and sexual deviate; and (2) immaturity reactions, a term which assembles those people in whom pathological behavior may develop on the basis of a fundamental arrest or failure of emotional growth; they do not become mature, stable adults; their emotional control is defective particularly in frustrating or stressful situations. For purposes of diagnosis the immaturity reactions are distributed according to the following nomenclature: emotional instability reaction, passive dependency reaction, passive aggressive reaction, aggressive reaction, immaturity with symptomatic "habit reactions."[1] These patients frequently seek readmission to one hospital or another. They haunt admitting rooms and are a source of annoyance to admitting physicians, are burdens to their families, and are frequently the responsibility of federal, state or local agencies.

None of the writer's seven combat veterans who did not improve was classified as a case of chronic traumatic war neurosis. The writer doubts that such an entity exists. Persistence of symptoms in so-called war neuroses, he feels, is dependent in large measure upon the interaction of predisposing personality factors, long-standing conflicts, and the effects of stressful situations. Symptoms, developed on the battlefield, may become charged with the energy generated by activated chronic or latent emotional conflicts. Indeed, combat symptoms of anxiety and battle dreams, which

have ceased to exist for months or even years, may re-appear under the stimulus of anxiety-producing situations.

Summary

This study has been an attempt to arrive at a quantitative estimate of the delaying and inhibiting consequences on therapy of the fact of service-connection in neuropsychiatric patients. In 121 veterans (followed up three years after hospitalization) the frequency of recovery in non-service-connected patients was almost twice that found in service-connected patients. Failure to improve occurred approximately once and a half times more often in service-connected patients and was especially noticeable in those with conversion and dissociative reactions. Predisposing factors have an important relationship. These influences, particularly immaturity, passive dependency and basic insecurity and inferiority—which originally joined with military stresses to precipitate psychiatric illness—now combine with social pressure to foster the continuation of symptoms. The Veterans Administration, with its pensions, hospitals and other benefits, becomes a protective parent figure to which many cling and from which some relinquish their hold with great reluctance, uncertainty and apprehension.

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THE SUCCESSFUL TREATMENT OF A SEVERE CHRONIC ANXIETY NEUROSIS WITH PSYCHOTHERAPY FOLLOWED BY ELECTRIC SHOCK TREAMENTS*

BY SELIG M. KORSON, M. D.

The treatment of the patient with long-standing anxiety symptoms of the "free floating" type, such as, headaches, tremulousness, palpitations, insomnia, anorexia, and with phobias of various kinds is a challenge to the psychiatric acumen of the therapist.

According to accepted psychiatric concepts the basis of all neuroses is in the repressions of an abnormal character which stem from the severe prohibitions of a rigid parental figure, during the patient's childhood. The basis of the anxiety neurosis in particular, according to psychoanalytical concepts, is in unconscious incestuous wishes which have been repressed, since they are unacceptable to the ego.

It is generally agreed that the anxiety states are resistant to electric shock therapy and are usually aggravated by this drastic somatic procedure.[1] Anderson,[2] Frohman, et al.,[3] Freed, Spiegel, et al.,[4] concur in this finding. The treatment of choice in the severe chronic anxiety state is psychoanalysis,[5, 6] which unfortunately was not available to the following case. It was necessary to hospitalize the patient in a neuropsychiatric veterans' hospital for 13 months. The case history illustrates graphically the severe chronic anxiety state.

Case History

J. C., aged 51, a single white man, was admitted to the Northampton Veterans Administration Hospital, Northampton, Mass., complaining of chronic fatigue, headache, insomnia, anorexia, apprehensiveness, palpitation, and phobias of "insanity" and impending death. He expressed feelings of intense guilt over mild sexual experiences which had occurred 25 years previously.

Family History. The patient's father, a fireman, died at the age of 76 of a cerebral hemorrhage. He had been an alcoholic when the patient was a child, but later reformed. He was described as

*From the Veterans Administration Hospital, Northampton, Mass. Reviewed in the Veterans Administration and published with the approval of the chief medical director. The statements and conclusions published by the author are the result of his own study and do not necessarily reflect the opinion or policy of the Veterans Administration.

a kindly, generous, easygoing, cheerful, personality who had left the discipline of the children to the mother.

The mother died at 84 of arteriosclerosis. She had been the dominant parent, the matriach type, who was inclined to punish the children for their misdeeds by corporal punishment. The patient particularly resented being "clouted" at the side of the head by his mother.

There is a history of involutional illness of J. C.'s youngest sister, aged 40, who developed symptoms approximately three weeks before the patient's hospitalization Another sister, 10 years the patient's senior, is considered highly "nervous." The patient is the fifth in line of six siblings. There is no other history of nervous or mental illness in the family.

Personal History. Little is known of the early developmental picture. The patient walked and talked at the normal ages. He had the usual childhood diseases.

Educational and Occupational History. J. C. is a graduate of a college preparatory school, but never attended college. He excelled in football and basketball. He considered himself a poor student and felt inferior to the others despite his athletic prowess. Following graduation from prep school at 18, he worked as a stock clerk for six months and then as a laborer for various city departments. This work was seasonal, and there was always a period of a few months a year when he did no work. He obtained his first steady job at the age of 42 as a janitor, a position he was able to maintain steadily except for short periods when he had exacerbations of his anxiety symptoms. He maintained this job until the present hospitalization.

Religious Life. The patient's mother was overly strict and rigid and attempted to regulate every phase of her children's lives according to a rigid moral code. J. C. was indoctrinated with the religious precepts and dogmas of his church, with strict adherence to its principles in a literal sense. He was taught not only that overt sexual behavior was sinful in the unmarried, but that thoughts of a sexual nature were evil and should be driven from the mind. His guilt feelings in regard to sex were intensified by his parish priest who reinforced his mother's strict religious indoctrination.

Sexual History. There is evidence of severe repression in the sexual sphere. The patient denied emphatically having mastur-

bated, and denies having had any homosexual or perverse experiences. Also he has had nothing but the most superficial contacts with the opposite sex.

Personality. J. C. has always been a shy, sensitive, inadequate, dependent person, who made few friends and was markedly introverted.

History of Present Illness. The first evidence of conflict in the sexual sphere occurred about 25 years before hospitalization when J. C. was 26 years old. He says that he was seated next to a girl in a movie and that without any provocation on his part, the girl made improper advances to him. A week later he returned to the same movie house, and the exact occurrence was repeated. He has felt extremely guilty all the following years, because he did not repulse the girl's advances, although he made no effort to pursue his advantage further. J. C. has also experienced thoughts of homosexuality, although he denies having had any overt experiences. He was a heavy drinker for many years; and, after each drunken orgy, he was terrified for fear that he might have made advances to one of his cronies; and he was tempted to inquire of them whether or not he had made homosexual approaches to them.

The man suddenly became a "teetotaler" 10 years previous to his hospitalization, following an automobile accident in which he suffered a brain concussion. He has been able to make a fairly satisfactory adjustment as a janitor at a court house, dating from the cessation of his alcoholic addiction. He, however, has had numerous periodic flurries of severe anxiety symptoms such as palpitation, sweating of the palms of the hands, severe headaches, easy fatiguability, and insomnia. At times these anxiety symptoms, which sometimes lasted for hours and even days, had a tendency to occur in the wake of certain environmental experiences. One such attack occurred when his younger sister, to whom he was very much attached, was married.

The severest attack of anxiety symptoms, which persisted despite efforts at treatment, occurred three weeks before his present hospitalization when the same sister suddenly developed involutional depressive symptoms and confided to the patient her greatest "sin." She told him that she had masturbated on one occasion when she was in high school. This confession by the sister, whom he idolized and placed on a pedestal, was a tremendous psychic shock and J. C.'s anxiety symptoms were greatly intensified, ne-

cessitating hospitalization. The story of this information—which proved to be the exciting cause of the exacerbation of anxiety that led to hospitalization—was brought to light only after about three months of intensive psychotherapy.

Psychotherapy was begun soon after the patient arrived at the hospital. Sessions were held on the average of three times weekly and were of one hour in duration each. In the beginning narcosynthesis with sodium amytal intravenously and hypnosis were the principal methods used in an effort to delve into the repressed conflictual material. Later on, the interviews were vis-a-vis, and an effort was made to give the patient at least limited insight into his problems. The basic conflicts in this patient—as is the rule in anxiety states, according to analytic concepts—are incestuous wishes which are, of course, unacceptable to the conscious ego. Interpretations were kept to a minimum and were only offered when the patient had sufficient insight to accept explanations. Because of the patient's chronic feelings of tension, he was given a course of insulin subshock treatment for a period of two months. This was terminated because the tension was increased, instead of decreased.

The course of the illness was marked by partial amelioration of the symptoms interspersed with acute exacerbations, the latter occurring when emotionally charged material was brought to the surface. However, at the end of nine months of intensive treatment, a definite leveling-off period was noted, with a generalized lessening of the patient's symptoms. He gained partial insight into his condition. He was adjusting well to hospital routine, working as an aide helper and singing in the hospital choir. However, his symptoms, though no longer severely distressing, still persisted. Headache on the left side, ringing in the ears, the tension and vasomotor symptoms, although now of a mild nature, still interfered with the patient's making a concerted effort to leave the hospital and resume his occupation. He still needed reassurance in regard to his phobia about "insanity," but no longer had a phobia in regard to death.

At the beginning of his tenth hospital month, it was decided to give him a course of electric shock treatments, in the hope that the repeated amnesias caused by the current would tend to converge and constitute a powerful aid in the removal of the conflictual material. The patient was given a course of 19 treatments.

These shocks were given three times a week, except for the last four treatments which were given daily, as the patient developed hyperactive behavior during the last week of treatment. He then developed an acute psychotic reaction which resembled closely a schizophrenic, paranoid type. This was evidently an acute homosexual panic state. He became extremely overactive and homicidal. Marked ideas of reference and bizarre delusions of a paranoid nature were evident. Auditory and visual hallucinations portraying homosexual content were prominent.

This acute phase lasted approximately four weeks and then gradually lessened, and the patient returned to a normal state. With the disappearance of the acute psychotic manifestations, the patient lost the last vestige of the anxiety symptoms which had plagued him for over 25 years. Instead of amnesia for his previous state, he showed some insight. He stated that he realized he had been selfish in his love for his sister, and that she had a right to live her own life with the man of her choice. He also realized that his guilt over mild sexual experiences was a direct result of his strict upbringing in regard to religion and morality. He remained in the hospital for a further period of two months, and, during this time, psychotherapy was in the nature of reassurance and support. Then he was discharged from the hospital and resumed his former employment immediately. It is now 16 months since he left the hospital and there has not been any recurrence of his anxiety symptoms.

Discussion

This case closely parallels the case of a severe, obsessive compulsive neurosis reported in 1949 by Korson[7] who began treating the patient in his sixth hospital year. After a year of psychotherapy, there was a partial amelioration of his symptoms. As in the present case, the patient was then treated with electric shock, and went into a temporary psychotic state from which he gradually recovered with complete remission of his previous neurotic symptoms. With a strong positive transference already established in the psychotherapeutic sessions, it was felt that the treatment situation was a repetition of an ancient interpersonal relation—the individual delivers himself into the hands of a strict, but in the end, forgiving parent figure who will mete out punishment justly and thus allow atonement and delivery from all evil. The accept-

ance of punishment allows the patient to assuage his conscience, fear and anxiety becoming unnecessary when retribution has taken place.

SUMMARY

1. Psychoanalysis is usually the treatment of choice in the severe anxiety states. This treatment was not available to the patient whose case is reported in this paper.

2. The patient was treated in a veterans' hospital for 13 months with psychotherapy in the form of narcosynthesis with intravenous sodium amytal, hypnosis, "free association," and support and reassurance.

3. With partial remission of anxiety symptoms, 19 electric shock treatments were given three times weekly.

4. After a transient psychotic episode lasting one month, there followed total remission of the anxiety symptoms, and the patient was discharged from the hospital.

5. There has been no recurrence of symptoms for 16 months.

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THE LOSS DURING HYPNOTIC AGE REGRESSION OF AN ESTABLISHED CONDITIONED REFLEX

BY LESLIE M. LE CRON

Workers in the field of hypnosis invariably find age regression to be one of the most interesting of all hypnotic phenomena. Such regression is an apparent return to any particular age or definite date suggested by the operator, such as a certain birthday or holiday. Or the time may be left indefinite, perhaps stated as prior to a certain age or event.

An excellent description of the process of inducing regression has been given by Erickson and Kubie.[1] Their paper points out two types of age regression, either of which may occur. In one the subject describes a former experience as though witnessing it or remembering it, but he relates it in terms of the past. Such memory-recall may be only partial and rather vague; at other times it is clear and remarkably redundant.

The more genuine type of regression occurs when the subject seems to be actually re-living some episode of his life. He relates it as though veritably experiencing it, speaking in the present tense. In this type of regression, all time subsequent to the suggested period, including the present, has apparently been blotted from the mind. The subject employs language such as would be expected of a person of the regressed age. Often his voice becomes childlike, his general behavior conforming to the suggested age.

Various attempts have been made to demonstrate the actuality of age regression. Erickson, in a personal communication, tells of "regressing" an adult male to an infantile level. The subject was seated in a chair so arranged that release of a latch would cause the back to fall into a horizontal position. As an involuntary reaction, an adult or older child would extend both arms and legs in an effort to maintain balance and prevent a fall if the back of the chair were to be suddenly released while he sat in it. When the latch was tripped in the test, the regressed subject squalled in fright, made no limb movement, and fell backward with the chair. An unexpected reaction was an accompanying urination which soaked the subject's trousers! Certainly such behavior is not acting, and is an impressive indication of the actuality of regression.

Hakebush, Blinkovski and Foundillere[2] have reported making intelligence tests at various regressed age levels, finding that the tests conformed to these ages. Bergman, Graham and Leavitt,[3] as well as Sarbin,[4] state that significant changes corresponding to the suggested ages occurred when Rorschach tests were given at consecutive age level regressions. This has been further confirmed by Norgarb.[5] Platenow[6] regressed subjects to childhood ages and gave them Binet-Simon intelligence tests with results corresponding to those ages. Platenow also found that word stimuli reanimated in the subjects earlier conditioned reflexes which had been lost.

To determine whether actual regression had occurred, True[7] established a verifying test. He used 50 subjects, each of whom was regressed to Christmases and his birthdays at the ages of 10, seven, and four. They were then asked, "What day of the week is this?" Of the total (300) answers given by the mixed group of 40 men and 10 women, 81.3 per cent were correct. The total score of the individuals among these 50 who were responsible for the 18.7 per cent of incorrect answers show that they, as a group, gave more wrong answers than right ones. Of the total answers, 93 per cent were correct at the age of 10 years, 82 per cent at the age of seven, and 69 per cent at the age of four. The last figure is remarkable, because not many four-year-olds would be expected to identify the days of the week. As an experiment where results may be measured accurately, this seems highly conclusive. It also demonstrates the accuracy of human memory for trivial matters.

The most convincing proofs of the actuality of age regression are to be found in tests of a physiological or neurophysiological nature where the response cannot be simulated. A most convincing test of this nature was reported by Gidro-Frank and Bowersbuch[8] as to the Babinski reflex. Up to approximately six months, the reflexive response in infants to stroking the sole of the foot is upturning of the great toe. After that age the response is the reverse—flexion instead of dorsiflexion.

These authors regressed three adult subjects (unaware of the nature of the experiment) to an age below six months. No other suggestions than to regress were made. A month by month study of the regression showed the alteration of the response from plantar flexion to dorsiflexion to take place at the regressed age of five or six months. It was found to be accompanied by changes in peripheral chronaxie.

The writer has confirmed this finding with several subjects. At the same time, it was determined that the sucking reflex was present in these subjects when regressed to infancy. Touching the lips lightly with the end of a fountain pen caused the subject to attempt to suck it, with facial expression of anticipatory enjoyment.

To determine further as to the reality of hypnotic regression, the writer has tested a behavior result which cannot be simulated. To do this, conditioned reflexes were set up in subjects while awake, were tested for their continuation under hypnosis, and again tested after age regression had been induced. It was thought possible that the reflex might be lost during regression, the investigator's attitude at the beginning of the test being quite neutral as to whether this would occur. If anything, the writer's attitude was negative, because a conditioned reflex has not only psychological but also neurological aspects.

It had already been determined by Scott[9] that a conditioned reflex, set up in the waking state, is retained under hypnosis. Nevertheless, in the tests reported here, after the subject was hypnotized the conditioned reflex which had been set up in the waking state was stimulated to make sure it was established and present under hypnosis. In each case the proper response was made to the stimulus (a buzzer).

The tests were given in two sessions, two subjects being used in each. Two were males and two were females; all were exceptional subjects, well-informed on hypnosis, three of them were also experienced hypnotists. All were aware of the purpose of the tests. Each was able to reach a deep state of hypnosis, with amnesia and other somnambulistic phenomena obtainable.

At the first session the two subjects were a man and wife. To set up a conditioned reflex, each was given a number of light electric shocks to the accompaniment of the sound of a buzzer, the shock strong enough to cause the hand to jerk away from the electric terminals.

After the reflex had been established, the subject was hypnotized and the reflex tested. Then each subject was regressed to a 10-year level. (The tests were conducted separately.) The subject was then led to converse, and the buzzer was sounded several times at irregular intervals. Neither subject betrayed any sign of flinching. When returned to normal age level and instructed to remember everything after being awakened, they were aroused and asked

to discuss what had occurred. Both expressed surprise that they had not flinched, and both had expected the experiment to fail. In the case of the woman, the buzzer had evoked no sensation when sounded. The man reported having had a feeling that the sound meant something to him, but he could not identify it. Both were positive they had neither flinched nor felt any inclination to do so. During the discussion the buzzer was again sounded, and the subjects responded to the stimulus by flinching again.

In the second session, with different subjects, the corneal reflex was used with the buzzer—touching the cornea with a soft cotton twill to cause the eyelid to wink. While the reflex was being established, one subject, a woman, found the stimulation of the cornea unpleasant and developed a body flinch away from the experimenter, as well as the wink response. After being deeply hypnotized and the reflex tested, she was regressed. The buzzer was sounded several times, at intervals, but she neither winked nor flinched.

The other subject was a man and the suggestion was made that he return to any age which he himself should select and to some pleasant experience. After a moment he announced that he was on a ship at sea and was 23 years old. He described the ship and later stated that he had had a very vivid hallucination of both ship and ocean. As he talked, the buzzer was sounded repeatedly, with no wink evidenced by him.

After being awakened, with suggestion of full remembrance, the sound of the buzzer again brought the wink response from both subjects. In a post-trance discussion both said they had heard the buzzer but gave it no significance and were unaware of any tendency to wink. It should be noted that in all the tests the subject heard the buzzer. Otherwise there might be the possibility that a selective anesthesia for the sound could have been spontaneously produced, an event which would have prevented the reflex from acting.

These two subjects were aware that the test of the first two apparently had been successful.

Discussion

The results of this experiment with only four subjects are indicative rather than conclusive. A better test would be the utilization of a conditioned reflex which could be mechanically meas-

ured. It is also barely possible that foreknowledge of the nature of the test might influence the result, though this seems unlikely because a conditioned reflex is theoretically uncontrollable. However a further experiment should be made to prove that a conditioned reflex cannot be inhibited by hypnotic suggestion.

Almost every authority is of the opinion that regression is actual, though this has been questioned by Young.[10] Gill,[11] in reporting a case of spontaneous regression, accepts the recollection type of regression but not the re-living type.

Summary

Age regression under hypnosis, sometimes to infancy, is a phenomenon usually obtainable in a somnambulistic subject. A number of researchers have sought to test its validity. Confirmation of this has been shown by intelligence and Rorschach tests, changed patterns of behavior, re-animation of former conditioned reflexes, ability to name correctly the day of the week of certain holidays and birthdays, reversal of the plantar reflex, revival of the sucking reflex.

A report is made as to tests on four subjects, which show tentatively that a conditioned reflex, set up in the waking state, is lost under regression, then is again evidenced on awakening.

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CONTRIBUTIONS TO THE INTERPRETATION OF A TYPICAL DREAM: FINDING MONEY

BY SANDOR FELDMAN, M. D.

In 1943, in this QUARTERLY, the writer offered the interpretation of a "typical dream," dreamed by many persons and, according to the writer's observations and experiences at that time, always of the same text.[1]

The dream is as follows: "I am walking on a country road. Suddenly I see a coin in the road, in the sand. I bend down to see it more clearly and, if it is money, to pick it up. To my surprise and joy I notice that there is not only one coin but many, and not only pennies, but nickels, dimes, quarters, etc., all in coins. Poking around in the sand, I find still more. I am very glad I have found so much money and want to collect all of it, taking pains not to lose sight of any of it. My excitement grows, and I am very pleased to have gathered up so much. A slight suspicion remains in my mind that some of the coins have escaped my attention, and that, hidden in the sand, one could find more and more coins, almost indefinitely."

The money is always in coins, never in bills, and is always found in the sand. The writer undertook the analysis of this kind of dream and concluded that "the sand indicates the earth in which we all are buried after death and from which, according to the well-known legend, we came. The dream-thought expresses the desire that the earth be the source of life only, and not of life *and* death. Why coins and never bills? Because coins, unlike bills, are regarded as imperishable. . . . They are more solid and more easily associated with the mother-earth idea than bills." More clearly, in the writer's interpretation, the coins symbolize the life of the dreamer who does not want to accept death at all, denies that his life will end; the dream asserts he will never die, his life cannot be destroyed, it will go on and on indefinitely.

In the seven years following 1943, the writer had opportunity to analyze more such dreams and obtained material from other sources that will be mentioned in this paper. They all prove the correctness of the first interpretation but show that the interpretation could go further and deeper. It has turned out, furthermore, that the dream has certain variations; the coins are found

elsewhere than in sand; coins may also be represented by other things. On the basis of new observations, additional findings and information, the first interpretation could be extended: *The coins, or their substitutes represent not only life but imperishable, indestructible infantile and later desires, which are repressed, hidden (in the sand, buried in the unconscious)*. In the dream one rediscovers them, accompanied by a joyful excitement, and by a feeling that there must be more and more.

In Central Europe at Jewish funerals, an official attendant approaches people at the funeral, and shakes a metal box, asking charity, saying repeatedly in a monotonous manner, "Charity saves you from death, charity saves you from death." Everybody drops a coin into the box. Everybody also knows that the deceased many times, at similar occasions, had given "charity money," and that it did not save him from death; nevertheless, it is a pleasant feeling to indulge in such illusions. Leaving the cemetery one pours water from a jar on his hands; the water falls into a container, and, after finishing this ritual, one again drops coins into the water. This time, instead of sand, the coins are in water, and hint at the imperishableness of life.

There was a custom among Jews in Central Europe that when a guest—after spending some time with a family—departed, he or she gave the children "parting money." Obviously the meaning of this custom was to keep the parting guest in the children's memories. And it worked. Children could buy many wonderful things for the equivalent of a nickel or dime (in European currency) and they did not forget the donor. It is a clever thing to give the coins to the children; they live longer than adults, they are still small and young, and have long lives before them. Here again money is used for the denial of death. Departure signifies death, to be forgotten means death also; giving coin-money maintains one's memory in children, who will live longer than grown-ups; and to stay in one's memory means immortality, denial of death. Freud considered childhood wishes to be indestructible, they come up all the time, especially in dreams; they stay alive in the unconscious; they resist the destructive impact of time.

A female patient related a recurring dream, not identical, but similar, to the typical dream of finding money, and it turned out that the motif was the same: an indestructible childhood desire. The dream is as follows:

"I am with my brother in a room. I am amorous toward him and tell him that now we can dare to do what we did not before, i. e., have sexual intercourse. I am going to the bathroom to wash myself and to come back to him. But my younger brother is around and we can't do it. I am going toward my closet, and I fancy how many beautiful clothes I have there: old clothes that I have forgotten I possess, and now I realize that there are so many. I open the closet door but the clothes I expected to find there are not in the closet; other clothes are there. It is a disappointment."

The closet part of the dream is a recurring dream, she has dreamed it several times. Usually, in those dreams, she does not open the closet door, fancies only that she has forgotten what treasures she has there. Only once before she dreamed that she opened the door, as she did in the present dream. As a young girl she often got clothes from her female relatives. She loved these clothes.

The brother is two years her senior. He was and is a very attractive man. They attracted each other very much but didn't dare to do anything. What they did do was talk about his girlfriends and her boyfriends. They talked about what they had done or would like to do. Really, they talked about each other. They enjoyed vicarious pleasure by teasing each other about their relations and knowing that they meant each other. The patient's feeling in the dream about the clothes in the closet, was a very pleasant one; she enjoyed knowing that she had discovered the clothes. She had forgotten them. It is pleasant to know that she still possesses them. The dream indicates that the clothes in the closet refer to the pleasant sexual memories shared with her brother. They are buried in the unconscious and cannot be destroyed. (Closet means the unconscious; coins, meaning desires, are replaced by old clothes.)

Griffith,[2] in a very interesting research project, undertook the task of investigating the validity of the psychoanalytic interpretations of "typical dreams," including the typical dream of "Finding Money."[2] He talked to a comparatively great number of persons who had had the dream of "Finding Money." Griffith found evidence for the correctness of the present writer's original interpretation: denial of death. In one case the dreamer dreamed of eggs instead of money. A woman "who has a heart ailment and a narrow death scrape within the last years 'dreamed' on three succes-

sive nights (that) she found a bunch of eggs all stacked in a conical pile. On the third night these eggs hatched into little chickens before her eyes." Instead of money in the sand, life is represented in this dream in a beautiful symbolic way by eggs from which little chickens, new lives, develop. Life is there forever. The dreamer's fear of death is completely denied.

Dr. George Engel was kind enough to put at the writer's disposal the dream of a female patient.[3]

"I was finding money in the snow, round silver dollars, quarters and dimes. I wasn't even looking, just walking along. There was always more and more. It was such a surprise."

Dr. Engel wrote, "The patient commented that this was a recurring dream, differing only in the fact that the money was in the snow. In previous dreams, it had been in sand, dirt, mud or in holes in the ground. She emphasized that the money was always in coins and never paper.

"The patient, a 33-year-old single woman, had just returned from attending the wedding of her only brother who is 11 years younger. Prior to this the patient had begun to recognize her jealousy of her brother and his fiancee and her strong wish that he not marry. Her aggressive fantasies had the content that he was unfit for marriage, that he would be impotent and that his fiancee was not suited to him. The earlier relationship had been one of exaggerated concern for the little boy. When she took care of him as a baby she indulged in a great deal of manipulation of the genitals during diapering and bathing. . . . The therapist called the patient's attention to her feeling of loss as it related to brother, something which she had not yet consciously acknowledged. She cried. The money dream occurred that night."

The writer accepts Dr. Engel's interpretation that the dream expresses reassurance. In the writer's opinion the coins in the dream symbolically represent her love for the brother and contain an assurance that she won't lose him. The desire is represented by the coins and, in this dream, instead of sand, the dreamer used snow which also has a preserving power.

The writer is grateful to Dr. Jose Barchilon for a dream of one of his female patients.[4] "When I was coming out of the parking lot, I dropped a nickel and a penny out of my purse and leaned over to pick them up and I just happened to think of a dream that I have

had just on and off. I haven't had it for a long time, but I do have it once in a while. The dream is that I'll be walking some place on these railings on sidewalks, you know, that I'll lean over and there will be a piece of change in the bottom. It's the kind of thing that you sometimes will have to use a stick with some chewing gum on the end of it to pick it up. So, after you pick that up, there just seems to be more money. It is all closed and you never get it picked up—it just keeps coming." The patient comments that she has had the same dream about finding money in dirt. Furthermore, she says: "Then you keep finding it, you can't pick it all up." According to Dr. Barchilon, the patient masturbated a great deal in childhood. "She has one masturbatory phantasy which represents her as being one of many women in a harem. She is chained to a table and a king comes to visit her and have intercourse with her. She can trace back her concept of intercourse in this phantasy to childhood. It consists of having a long rubber tube similar to those used for giving enemas joining her genitals to those of the king."

In the writer's opinion the dream thought refers to incestuous masturbatory fantasies of childhood; they are buried in the unconscious (in the dream represented by the "railings" in the sidewalks). The strength of the desires is represented by the great number of coins, and they never end. . . .

Further studies of such dreams might reveal other powerful wishes of childhood and later years.

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EDITORIAL COMMENT

OUR CAKE IS PART DOUGH

Once upon a time there was a comedian who used to bring howls from his audiences by wringing his hands and saying piteously, "I feel *so* futile." Maybe it's good catharsis, or more simply, just good for the soul, to confess to feeling futile now and again.

From the high tragedy of the despair of "the Preacher, the son of David, king in Jerusalem," who perceived that all is vanity, there is a long, descending road to the small boy whose grasp falls just short of the cookie jar. And perhaps our present plaint belongs, somewhere along the road from sorrow to doleful comedy, in the company of that distinguished Confederate officer, who, with the forts above New Orleans tumbling beneath the mortar shells of the Yankee fleet, advised his men to run to cover: "Our cake's all dough." If our own cake is not quite all dough, at least there are some disconcertingly doughy spots in it.

The progress of the mental hygiene program in the last half-century might be graphed with a rising line which would take the roof off any clinical thermometer. Or we might vision our angel cake, rising white, fluffy and delicious. Only, don't open the oven door to look at it. It might fall into dough.

Where the mental hygiene campaign is concerned, conservatism with oven doors appears to be indicated. We think the ingredients have been generally sound, the mixing careful, the heat well regulated; but doughy spots are plentiful enough on inspection. That is, our effort for the most part has been well planned and the preparatory work well executed, but there are disconcerting results now and then in the finished product.

One may, perhaps, for illustration, be permitted a cavil. The mental hygiene campaign is an effort to promote public and individual emotional and mental health by the usual channels of public relations—through lectures, books, pamphlets, the newspapers, radio and television. It is concerning one of the best and most reputable of the newspaper columns of medical advice that we propose to cavil.

The physician-columnist is discussing warts. The best remedies for juvenile warts, he says, "include . . . psychotherapy." "There

is no doubt as to the value of the psychological cure. . . . The childhood wart is most susceptible. . . . The more hocus pocus, the better and for this reason colored dyes are employed and the youngster is told not to wash the spot for days. . . . Electrical machines are an added attraction. The electrodes need not be attached. . . . From three to four weeks later the warts begin to wither. When psychotherapy is not feasible we have alternate plans. . . ."

To proceed to the cavil—this may be, as far as the actual cure of warts goes, sound medicine, good observation and uncommon good sense. But calling it psychotherapy is certainly not the best mental hygiene. Suggestion is a psychotherapeutic process; but suggestion based on magic—or hocus-pocus—is a generally dubious procedure. In the case of juvenile warts, hocus-pocus is an uncommonly effective placebo therapy; a superstitious patient could derive the same benefit from rubbing the wart with a slice of raw potato, and burying the potato, or from carrying a horse chestnut. Whatever the symptomatic relief, if this is psychotherapy, so are amulets, incantations, love potions and witch-doctoring in general. One does not need merely to shudder to think of the possible consequences of taking such therapy seriously. If the child is father of the man, the child who believes his warts have been cured by magic is father of the man who seeks the cure for "weak lungs" in aromatic smoke or attempts to treat syphilitic "bad blood" with boneset tea.

The psychiatrist, who recognizes that there are a great many unquestionable mental and emotional phenomena which he cannot explain, is unlikely to scoff at "hocus-pocus" wart treatments—although he certainly would be interested in why they are not used on plantar warts, which the author of the popular medical column himself hints are something out of the ordinary. But the psychiatrist may well recognize the effectiveness of hocus-pocus or placebos and still deplore description as psychotherapy. If they are described to the public as psychotherapy, what does the public believe we do in the psychotherapeutic treatment of mental—and/or other psychosomatic disorders than verrucae? It is generally accepted that psychological treatment recognized as hocus-pocus by the therapist himself is unlikely to be permanently effective. Even those therapists who accept and act out roles dictated by their patients' delusions and hallucinations do so in the aim of

returning the patients to eventual full acceptance of reality. Distortion of reality through a patient's permanent acceptance of hocus-pocus may be a doubtful improvement over idiopathic distortion. So we take exception to calling any such process psychotherapy—with the inescapable implication that psychiatrists so treat all their patients. All of which, we should perhaps repeat, is probably cavilling and certainly does not necessarily imply disapproval of the procedure.

One may cite, in connection with the same general subject of public information, an item in another of the better newspaper columns of medical education. It was printed in furtherance of the general mental health campaign; and the blame for the material with which we find fault—not cavil at this time, but seriously criticize—may be put squarely where it belongs, on the shoulders of psychiatry. For the general medical man who writes the syndicated column, quoted terms from a glossary in the work of an eminent and respected psychiatrist. The glossary as quoted gives the following definition: "Schizophrenia—double personality."

This is, of course, fairly reasonable interpretation of the two Greek phrases which make up Bleuler's famous term and which might be translated literally as "split mind." But we are personally unacquainted with any psychiatrist who would consider "double personality," however reasonable an interpretation of the word "schizophrenia," anything like a reasonable definition of the condition the word represents. And we cannot imagine anybody teaching medical students or student physicians that "double personality" is the distinguishing symptom of schizophrenic patients.

Yet there seems to be a widespread public impression that double personality is the mark of schizophrenia. Morton Prince's famous work, *Dissociation of a Personality,* made its mark on the popular and literary imagination; and the condition somehow became linked popularly with schizophrenia instead of with hysteria, where it is generally considered to belong. Of the uncountable questions about mental disorder addressed to psychiatrists by earnest seekers of information, one of the most common is as to the prevalence of "double personality," which the questioner invariably identifies with "split personality" or schizophrenia.

This public misinformation is not of any great importance in itself. It can do no great harm in this particular instance to have even general public misapprehension of what schizophrenia is

about, except in cases where ignorance may result in failure to recognize dangerous symptoms. But it is of great importance that the public is being misinformed about any aspect of psychiatry, however minor, either by general medical people or psychiatric specialists. The effort to better our national mental health does not aim to make the layman a diagnostician. It does aim to give him accurate information; and when misinformation instead is dispensed by supposedly authoritative sources, it not only sows the seeds for future confusion and contradictions, but it casts doubt on the reliability of the great volume of more important accurate information which the mental hygiene workers have succeeded in giving generally. Incidentally, the other definitions quoted by the medical columnist are well worded and quite accurate.

We think one more incident of misunderstanding may usefully be cited. On the same newspaper editorial page on which we noted the syndicated schizophrenia definition, an otherwise excellent, local editorial, commending the efforts of the National Association for Mental Health, remarked that mental illnesses "are illnesses just like any other organic ailment. . . ."

This, we think, is another instance of failure—relatively unimportant in itself but again important as casting doubt on the general accuracy of mental hygiene information—to represent faithfully what is, at present, generally-accepted psychiatric opinion. Generally-accepted opinion would, of course, take exception to "organic" as descriptive of schizophrenia, the affective disorders and the psychoneuroses, even making allowances for a strong organicist minority and for majority members who have their fingers crossed. The specific danger in general public acceptance of this minority view would not be extreme, of course, although it could be expected to strengthen the clamor of relatives for surgical, electrical, and pharmaceutical procedures—which, like other therapeutic measures, should be medical, not lay, responsibilities. And it could be expected to multiply—in relatives' contacts with psychiatry—confusion, contradictions, and general impressions that psychiatrists do not know what they are doing.

One cannot here blame an editorial writer, who is a professional in editorial writing, not in psychiatry or any other science, just as one cannot blame a general medical writer who circulates a poor psychiatric definition on the authority of a psychiatrist. We

think we in psychiatry are ourselves to blame, perhaps for careless wording of some information we disseminate, perhaps for insufficient attention to the occasional popular misunderstanding of such accurate information as we do disseminate.

As a check on the possibility that these notes are too sweeping generalizations, we made a random survey of the definitions of, and notes on, schizophrenia in seven readily-available psychiatric and general medical dictionaries and texts, and in one general dictionary and one general reference work. The general dictionary and one of the general medical dictionaries had acceptable definitions which did not mention the "split" implied in the prefix "schizo-." The general reference work and a general medical digest gave satisfactory discussions, noting that the split in schizophrenia is between ideational content and affect, or in less technical terms between mentation and feeling. The psychiatric works gave generally satisfactory discussions and definitions, though most of them failed to explain "schizo-." One of the general medical dictionaries gave the cryptic and—for non-specialists and students—unsatisfactory information that schizophrenia, Bleuler's term for dementia præcox, represented, in Bleuler's opinion, "a cleavage or fissuration of the mental functions."

We have constructed this psychiatric mountain out of a handful of semantic molehills with the idea of demonstrating a major obstacle in the path of mental hygiene. This journal has previously discussed difficulties in psychiatric language and in psychiatric communication within the framework of science. What we want to emphasize now is the difficulty of communication between psychiatry and the public in general, a difficulty which must be met if the cause of mental hygiene is to be forwarded. We think it is our own fault. When a medical writer of experience and repute calls hocus-pocus—or placebos—psychotherapy, we can't complain if we ourselves have failed to emphasize the distinction.

Hocus-pocus has a very ancient role in medical treatment. It seems likely that the witch doctors of Cro-Magnon man prescribed placebos. And anybody who has curiosity enough to delve into the medical textbooks of 70 or 80 years ago will find instances of such things as surgical hocus-pocus for the treatment of delusions —for a classical example, a pretended gastrotomy on a patient who believed he had a lizard in his stomach; he emerged from anesthesia with a shallow but convincing incision neatly sutured

in his abdominal skin, to be shown a small lizard in a specimen bottle. (We can only regret the absence of a psychiatric follow-up or of enlightened psychiatric comment.)

Hocus-pocus of this sort, of course, depends for results on psychological effects. But no more than the magicking of warts, is it psychotherapy. Placebo therapy is placebo therapy, whether accomplished by the sugar pill, the surgeon's knife or a colored dye; and juvenile warts, like some manifestations of anxiety and some hypochondriacal symptoms, seem amenable to placebo treatment—the wart, which is a somatic symptom, as readily as the anxiety, which is psychic.

We think we have not taken sufficient pains to make clear to the general medical profession that psychiatry does not set much store by placebos—that the psychiatrist, in fact, is less habituated to placebos than the average general practitioner, and that he is likely to prescribe them with greater reluctance. The psychiatrist will readily concede that the value of some of the procedures he employs for empiric reasons, or even with currently-convincing rationale, may, in fact, prove finally to lie in their effects as hocus-pocus or placebos; one sometimes hears, for instance, the suggestion that electric shock may be effective because the patient thinks of it in terms of ritual or magic. But few shock therapy directors administer it for magical or placebo value.

We think we need to concentrate a little more effort in winning medical and general understanding of just what psychiatry is trying to do and, in particular, of what sort of thing psychotherapy is, and of how we use it. We shall be handicapped in our efforts to promote public mental health as long as substantial minorities believe we treat imagined ills by magical methods; the witch doctor commands no respect in our modern society.

We believe that we need to exercise greater care in educational and other publications intended for students, general practitioners, or the general public. We cannot document this suggestion; but we wonder if sometimes a publisher doesn't say to an author, "A glossary would improve this book; we'll supply it for you." Or the author might leave such a job to a non-professional secretary or editorial collaborator. At least this would be a kindly explanation of such definitions as "Schizophrenia—double personality." Or another kindly explanation of our medical columnist's definition might be quotation from a reasonably adequate glossary

in too brief excerpt or out of context. But neither such explanation would seem to lessen any harm done.

Finally, we think we need to redouble our care in presenting our general concepts accurately to the nonmedical public. The news or editorial writer is as desirous of presenting his facts comprehensively and accurately as is the scientist whose material he is reporting. We think we need to be particularly careful in presenting material of a comprehensive nature for such general use. And we wonder if, in an instance cited in this comment—the statement that mental disorders are organic—the basic difficulty was not that of making plain that reality is not synonymous with organic. We live in a technological civilization in a rather materially-minded world; it is sometimes difficult for many persons to appreciate that there are realities they cannot see, hear, taste, smell or touch. But we in psychiatry deal with such a reality—be it called function, mind or soul. We think we should be careful in talking to, or writing for, people whose world is less centered about that particular reality, to stress the fact that: When we insist that mental disorders are as real as broken ribs or leukemia, we do not mean they are tangible or visible or necessarily organic. And we think we should stress the point that representation as organic of something which may or may not be organic may, in the instance of mental disorder, lead to general public misunderstanding, strained public relations with psychiatry, difficulty with relatives, even difficulty with the patient himself.

We think, in the process of reducing our psychiatric mountain to semantic molehills again, that the good will and professional competence of physicians writing medical columns for the daily press may be assumed. In particular, there is no doubt that the two whose writings have been commented upon here aim to do, and are doing, generally splendid service in the way of promoting mental hygiene. But we do think we may have briefed them badly. We suggest that there should be some way in which the National Association for Mental Health and other interested organizations and individuals could make and maintain better contacts with these general medical people who write. Perhaps conferences or a liaison organization of some sort would be desirable; we do not know the answer; we merely make the suggestion that an answer is desirable.

For the writer or commentator whose professional background is non-medical, the problem may be less one of organization than of individuals. Such writers ordinarily know a psychiatrist, just as they know a politician, a banker, an educator or a sports figure. Most such commentators welcome the opportunity to obtain informed counsel and expert advice. We think that, for those of us in psychiatry who are in contact with these important people, to exercise the utmost circumspection, the utmost care, the greatest effort to see that they give a clear general understanding of what psychiatry is, how it is, and why, would be no mean public service.

We think psychiatry has been too long in the company of those who are misunderstood; and that there is more truth than paranoia in our attitude. But we do think it is largely our own fault. We haven't completely mastered the art of talking to other professionals or to non-professional people. And we think it is time that we doubled and redoubled present efforts in the national mental health campaign to remedy this primary defect in communication.

BOOK REVIEWS

Psychotherapy with Schizophrenics. Eugene B. Brody and Frederick C. Redlich, editors. 246 pages with index. Cloth. International Universities Press. New York. 1952. Price $4.00.

This book is a symposium of articles, most of which were presented at the Conference on Psychotherapy with Schizophrenic Patients held at the Yale University Department of Psychiatry on December 6, 1950. The conference papers which are included in this volume are: "Some Aspects of Psychoanalytic Psychotherapy with Schizophrenics" by Frieda Fromm-Reichmann, with discussion by Jacob Arlow and David Wright; "The Structural Problem in Schizophrenia: The Role of the Internal Object" by Milton Wexler, with discussion by Robert Bak and Ludwig Eidelberg; and "Group Psychotherapy with Chronic Hospitalized Schizophrenics" by Jerome Frank, with discussion by Elvin Semrad and Lawrence Kubie.

Also included are the articles "Remarks on the Psychoanalysis of Schizophrenia" by K. R. Eissler, reprinted from *The International Journal of Psycho-Analysis;* and "Therapeutic Considerations Arising from the Intense Symbiotic Needs of Schizophrenic Patients" by Ruth W. Lidz and Theodore Lidz, which was read at the 1951 meeting of the American Psychiatric Association.

These articles are preceded by two papers by the editors: The first is by Dr. Redlich on "The Concept of Schizophrenia and Its Implications for Therapy"; and the second by Dr. Brody on "The Treatment of Schizophrenia: A Review." An introduction by Robert P. Knight completes the volume

This book contains a good deal of interesting and stimulating material, based on the clinical experiences of the various authors. However, one is impressed by the lack of any systematic research approach. One of the contributors, Dr. Kubie, recognizes the problem: "We have neither clarified what we consider to be the essence of the schizophrenic process, nor have we taken any theory as our working basis." This symposium points up the vague, speculative stage in which psychotherapy with schizophrenics is at present. It would seem that a collaborative approach by psychiatrists and clinical psychologists trained in research is needed. Dr. Frank's paper, the only one in this volume which is based on an experimental study, is at least a step in this direction.

The Autonomic Nervous System. Third edition. By J. C. WHITE, R. H. SMITHWICK, and F. A. SIMEONE. xxii and 569 pages, with 36 tables and 108 figures. Cloth. Macmillan. New York. 1952. Price $12.00.

Extensive revision and rewriting has taken place to bring this edition up to date. It includes the new experiences since the first edition 17 years ago.

The book is divided into three parts. Practical advances resulting from the accumulation of knowledge of the anatomy, physiology, and pharmacology of the autonomic system are reported in the first.

The second part is concerned with the effect of sympathectomy in abnormal conditions of intolerable pain, faulty visceral function, and general smooth muscle and glandular disturbances. In this section, differentiation is made between cases suitable for sympathectomy and those that are not. Of great clinical importance, is the chapter discussing the value of improved collateral circulation, attained by sympathetic block or sympathectomy for various forms of peripheral vascular disease. In a chapter on the Smithwick operation for hypertensive cardiovascular disease (thoraco-lumbar technique), which is compared with the supradiaphragmatic technique of Peet, we are brought up to date on their experiences and concepts.

Part three is devoted to operative techniques. These are well described and adequately illustrated.

A 75-page bibliography indicates the volume of material referred to and the consideration given to the writing of this edition.

Since the authors have well-deserved recognition in their field, since the text is easily read to reveal their present attitudes, and since no part of the body is free of autonomic nervous system control, this clinically practical book is highly recommended reading for every physician and surgeon.

Problems of the Family. By FOWLER V. HARPER. 806 pages. Cloth. Bobbs-Merrill. Indianapolis. 1952. Price $9.00.

The author is a professor at the Yale University Law School and for several years has been teaching the course in domestic relations. He became dissatisfied with the purely legal approach to problems of the family, and started to adduce the newer psychiatric findings. The volume now presented is the result of these studies. It is certainly valuable to the lawyer; and is just as valuable to the physician. It contains an enormous volume of material to show how the law deals with family problems. The author calls his book an "experiment in integration of the various disciplines which deal with the problems of the family." The experiment is worth while, and the author can be congratulated on his timely approach.

Dynamic Psychiatry. By LOUIS S. LONDON, M. D. Vol. I, Basic Principles, 98 and VI pages. Vol. II, Transvestism—Desire for Crippled Women, 129 pages with 50 figures. Cloth. Corinthian Publications, Inc. New York. 1952. Price, Vol. I, $2.00; Vol. II, $2.50.

Half of the pages of Louis London's first volume are on the "evolution of psychotherapeutics." The remaining five chapters discuss the dream and libido. Progress in dynamics is probably well illustrated by comparing the words used in ancient times with those used in the present. Galen thought that anger aroused pathological excitement through the medium of excessive bile formation. At present, we say anger arouses pathological excitement—probably by electrical impulses along neurones. Soranus and Aurelianus thought that mental disease might be ascribed to a vital force. Today we call this force emotional energy or libido.

The second volume contains 50 drawings by a transvestite, with the patient's own statements regarding the drawings, and Dr. London's analysis of the case.

Prisoners Are People. By KENYON J. SCUDDER. 282 pages. Cloth Doubleday. New York. 1952. Price $3.00.

The author, superintendent of Chino Farm Prison for men in California for 11 years, gives the reader a description of the development of a prison run on what might be called the "honor" system. In an anecdotal way, the author describes a setting in which prisoners are treated like individuals with most of the rights and privileges of free citizens. At Chino there is a prisoners' council which operates much the same as a student council and produces many of the same effects by giving the inmates a voice in their own government. The inmates impose and enforce rules and regulations which would be very difficult for custodians to impose and enforce in anything but a rigid prison setting. At Chino, there is an active retraining program in living as well as in the vocations. The freedom of the inmates with their visitors, and the opportunities to have picnics, etc., illustrate this last point.

Mental institutions have frequently been called on to care for inmates of penal institutions who were considered prison problems. They have succeeded in caring for these people by adopting a non-punitive philosophy, much the same as that expressed in this book.

It is important that in this volume the author does not tell of life as just a "bed of roses" but takes factual cognizance of the pitfalls and difficulties which he, his staff and his wards have encountered and expect to encounter.

The reviewer feels that this is a book both worth while and interesting.

The Annual Survey of Psychoanalysis. Volume I. John Frosch, M. D., editor. 556 pages including index. Cloth. International Universities Press. New York. 1952. Price $10.00.

This is an attempt to survey all the psychoanalytic literature of 1950, inclusive of neo-Freudian and "unorthodox work." The editorial advisory board notes, "Art is long, life short and most analytic writers not too economic of our time and life as readers. Perhaps the Survey will save us some of this valuable time, or reduce its expenditure to a minimum." The material reviewed was published in 14 American and British journals (including this QUARTERLY), a French journal, Angel Garma's Argentine *Revista de Psicoanalisis*, and the Indian journal, *Samiksa*, which is published in English. Twelve psychoanalytic books published during the year are also reviewed, and there is a list of other psychoanalytic books published.

The accomplishment, however, falls short of the aim. It attempts summaries in chapters ranging from the history of psychoanalysis, through therapy, applications to related disciplines, and training and practice; and, although there seems to have been painstaking effort to achieve objectivity, the presentation is not without veiled criticism in spots. Furthermore, the whole field has not been covered; this reviewer is informed by one worker whose material is included that less than a third of the scientific papers he published in 1950 were covered. The overall pictures cannot be relied upon therefore to be in good perspective.

An annual survey of a scientific discipline should be reliable for reference purposes and informative as to progress of thought. Such a survey of psychoanalysis could well become indispensable in future general psychiatric and general medical libraries. But if future volumes are to meet this purpose, greater objectivity and fuller coverage will be needed. A listing of papers, with description of content, would come closer than the present work to satisfying that requirement.

Man Into Wolf. By ROBERT EISLER. 286 pages including index. Cloth. Philosophical Library. New York. 1952. Price $6.00.

This book is a lecture delivered before the Psychiatric Section of the Royal Society of Medicine by one of Europe's most distinguished scholars. It is an interpretation of algolagnia, lycanthropy and other phenomena on the basis of Jung's theory of archetypes. The sadist or the lycanthrope is the "'archtypal' beast in ourselves," Eisler thinks. Modern man, the author holds, is the descendant of carnivorous lycanthropic males and of females of the original peaceful, fruit-eating *bon sauvages*, whom he regards as the original human type. Carnivorous, lycanthropic man, he thinks, represents a mutation from the original fruit-eating species

"evolved under the pressure of hunger caused by the climatic change at the end of the pluvial period, which induced indiscriminate, even cannibalistic predatory aggression. . . ." Eisler believes in the inheritance of acquired characteristics—such as predatory habits—and devotes an appendix to the discussion of Professor Jung's archetypes and neo-Lamarckism.

This volume is arranged in the form of an original lecture of 29 pages, plus more than 200 pages of notes. This reviewer thinks few scientists in this country will grant the author's premises but that nevertheless he has contributed a fascinating and stimulating work on a still too-little-studied subject.

Précis de Psychiatrie. By ANDRÉ BARBÉ. 1116 pages. Doin. Paris. 1950. 2,500 fr.

Précis de Neuro-Psychiatrie Infantile. By Dr. GILBERT-ROBIN. 416 pages. Doin. Paris. 1950. 1,500 fr.

Assistance et Protection Des Malades Mentaux. By XAVIER ABELY and JEAN LAUZIER. 332 pages. Doin. Paris. 1950. 1,350 fr.

Manuel Technique de l'Infirmier des Etablissements Psychiatriques. By L. MARCHAND, and ROGER and HUBERT MIGNOT. 416 pages. Doin. Paris. 1952. 1,700 fr.

These four works represent a series of textbook publications by the publishers, G. Doin and Company. They are prepared for medical students, general practitioners and nursing students. They are valuable insofar as they are a manifestation of classical French psychiatry.

The *Précis de Psychiatrie* is a first edition and is primarily for medical students. It has been much influenced by Seglas. It considers psychiatry the least specialized of the medical specialties. The clinical point of view is stressed, and the presentation is descriptive in character. The author insists on a precise and correctly applied terminology. Common sense and clinical observation are two principles which should direct the activities of every psychiatrist. Barbé points out the difficulty of classifying the mental disorders and the importance of studying the patient more than the disease. The entire book is divided in such a way that it reflects the descriptive and symptomatologic point of view. The last chapter is devoted to the methods of treatment which are listed as follows: prophylaxis, moral treatment, physical treatment, chemical treatment, biological treatment, methods of shock, and surgery. The reviewer deplores the almost complete absence of a dynamic understanding of the neuroses and psychoses, an understanding that is called for even when there are demonstrable organic etiological factors involved. The concise and orderly description of the clinical syndromes is, however, outstanding and rarely surpassed in textbooks.

Dr. Gilbert-Robin has published many books on child psychiatry. The preface of the present text is written by Professor G. Heuyer. He divides the field of child psychiatry into what he calls neuropsychiatry and neuropsychology. The disorders of intellectual functions are to be studied first from these two points of view. The reviewer thinks that this is the most valuable part of this book. The intellectual development of the child is considered to be a function of the development of his nervous system, and there are good presentations of the findings of French psychiatrists over the past 50 years. In the second part of the book, the behavior and character disorders are again approached from a descriptive point of view. This is almost an enumeration of the circumstances in which the child will develop different symptoms with, the reviewer thinks, little understanding of why and how he does develop them.

The book by Abely and Lauzier covers all the legal aspects of psychiatry. Legislation concerning mental patients, the organization and administration of psychiatric hospitals are reviewed in an elementary form. In the introduction the authors point out that the text by Raynier and Beaudouin remains the indispensable one for every psychiatrist who wants to study the problem adequately. In France, mental patients first received charity and help from members of religious orders during the sixteenth century. The next step was accomplished by Pinel in 1792, but it was only in 1838 under the influence of Esquirol, Ferrus, and Falret that the first law for help to mental patients was promulgated. The principles of the law of 1838 have influenced all further developments. This law was primarily directed toward the mental patients' right to receive medical care. The other basic concepts which have influenced legislators are: (1) the protection of society, (2) the guarantee of individual freedom, and (3) the protection of the patient. The book enumerates the duties of different administrators and physicians in and out of the psychiatric hospitals, elaborates on the financial and legal organization of those hospitals, and gives directions as to protection of the property of mental patients.

The *Manuel Technique de l'Infirmier des Etablissements Psychiatriques* is in its fifth edition in 1952; the first was published in 1912. This book's principal purpose is to give the psychiatric attendant some knowledge of the basic sciences and also of the care of the mental patient. It is concise, elementary, and suitable for instructing attendants. It teaches the fundamental notions of psychiatry and shows how to deal with patients in the spirit of the law of 1838. An attendant familiar with this book should be able to deal with any emergency and to handle a case of physical injury or disordered behavior until a physician is reached.

When Doctors Are Patients. Max Pinner, M. D., and Benjamin F. Miller, M. D., editors. XIX and 364 pages, including preface, introduction, acknowledgments and index. Cloth. Norton. New York. 1952. Price $3.95.

This book is more than a mere collection of medical case histories. It is unusual and fascinating human material—worth serious study by physicians and psychologists—on the effect of illness on men generally and especially on those supposed to have insight and judgment about suffering and ailments. One does not need to be surprised to learn that when doctors are patients, there is every behavior pattern that physicians encounter in general practice. But the student of *these* records will learn more of the importance of patient-physician interrelationship than by analysis of his regular cases.

There are exciting reports of human heroism seldom found elsewhere. There are medical observations of details not found in textbooks, there are fascinating, as well as amusing, reports of us physicians—as if seen in a mirror. There will be no doctor who will not benefit in some way or other by studying carefully this important book.

It is a work to be read by every physician.

Who Are the Guilty? A Study of Education and Crime. By DAVID ABRAHAMSEN. 340 pages. Cloth. Rinehart & Co. New York. 1952. Price $5.00.

This is a non-technical book on the causes and treatment of crimes. It is the author's hope "That it may become a primer about education and crime." It would seem to fulfill this hope well and it is to be recommended to the layman as well as professional people, as it gives a "broad mental-hygiene plan based upon educational aspects and represents a synthesis of our present knowledge about the relationship between the human mind and delinquent activities." As an educator, research worker and practising psychiatrist, Dr. Abrahamsen brings a wealth of knowledge, both theoretical and practical, to the problem of crime as he draws from findings in the fields of sociology, education, anthropology and clinical psychology, as well as on medicine and general psychiatry, to supplement his basic psychoanalytic frame of reference. Another asset of the book is that it is up-to-date, and recent findings are well integrated. The author covers a variety of topics including psychoanalytic theories of crime, constitutional and psychosomatic factors involved, the relation of crime and mental illness, an analysis of sex criminals, discussion of prisons and imprisonment, and a discussion of treatment and prevention of crime.

The book is well written, reads smoothly, and is well documented with concrete case material.

Baudelaire on Poe. Lois and Francis E. Hyslop, Jr., editors and translators. 175 pages. Cloth. Bald Eagle Press. State College, Pa. 1952. Price $4.00.

The significance of this book would seem to lie in the fact that it is the only full translation of the French writer's works on Edgar Allan Poe since H. C. Curwen offered one in 1872. Also that work, according to the present editors, was faulty and suffered from a few omissions. The present one would seem to stand as the only one available carrying the complete and correct text. A great deal of research and collaboration has gone into this book; and the editors are to be congratulated, not only for Baudelaire's contribution, but for reminding readers in this country that Poe was highly thought of abroad and that he may be worth looking into again. Students of Poe or Baudelaire—who, in view of the psychopathology of both men, must include psychiatrists—will prize this book, for it is handsomely done, with beautiful type and shows the marks of loving care.

Hugh Walpole. By RUPERT HART-DAVIS. 444 pages. Cloth. Macmillan. New York. 1952. Price $5.00.

Walpole, a third-class popular writer, operated during his lifetime a first-class non-literary defense mechanism—the "magic gesture" of loving everybody and wanting to be loved by everybody. From every adverse critic, he wanted "to learn" at personal luncheons; every important writer in England received fan letters from him. All this led to extensive, sublimated "friendships," mostly with men; even his enthusiastic biographer admits that Walpole never made love to a woman. Walpole's personality is best characterized by two statements.

A Mrs. Moore who observed him as a *child*, noted: "As I see it, Hugh's boyish life was just one running romance of which the hero was always the same misunderstood and lonely and unhappy little boy. I take it that the retina of his memory as it were rejected all light and only retained the dark."

R. H. Bruce Lockhard who observed him as an *adult*, notes: "Someone entirely unspoilt, who could still blush from an overwhelming self-consciousness, and impressed me more as a great, clumsy schoolboy, bubbling over with kindness and enthusiasm, than as a dignified author."

Between these two periods lies the elaboration of the lifelong "magic gesture"; the masochistic stratum was subsumed in nightmares, in a not too high opinion of himself, and in constant expectation of some impending doom. That this demonstration, embedded in the "magic gesture"—which is, "I'll show you how I really wanted to be treated, kindly and lovingly"—was only the superficial (though also unconscious) façade, was visible in *not* finding the "ideal" friend, and in working up "epistolary grievances." The latter consisted in "accusing his friends of not having

written to him when they had," as Hart-Davis states (p. 125) without understanding the psychic interconnections.

As a writer, Walpole was naïve; a literary magazine characterized him as a mixture of "sentimentality, preaching, monotony." And people unfamiliar with unconscious mechanisms, misunderstood his "I love and want to be loved" technique in social intercourse, as conscious hypocrisy and as running after important "personalities." The condensation of this unavoidable impression is contained in Somerset Maugham's satire, *Cakes and Ale*, where Alroy Kear supposedly represents Walpole.

Hart-Davis' biography is extremely tiresome, unless one is a Walpole enthusiast. It records external events without understanding. Sympathy for his object of research does not absolve a modern biographer from some kind of explanation of the subject.

Crime in America. By ESTES KEFAUVER, chairman of the Senate Crime Investigating Committee (May 10, 1950-May 1, 1951). 174 pages. Doubleday. Garden City, N. Y. 1951. Price, paper $1.00; cloth, $3.50.

This account of *Crime in America* is based upon the testimony at the hearings, and upon the reports, of the crime investigating committee to the Senate before May 1, 1951. It is edited by, and has an introduction by, Sidney Shallett, and contains the Tennessee senator's analysis of what has been done, what still must be done, and how we best can do it, with regard to corruption in small and big cities from Tampa to Reno. Case studies of "Lucky" Luciano, Joe Adonis, Frank Costello, et al., make this report extremely interesting reading for anyone who is working in the field of human relations. Although the senator from Tennessee has complied many other reports of even more thorough investigations which he has directed, this record may be called his most flashing one. Critics as well as admirers of "live" telecasting of congressional committee inquiries, and of the conduct of congressional committee inquiries in general, will find much conducive to further thought in the record of this investigation. There are no illustrations except for the photographic end-papers, containing pictures of the members of the Senate Crime Investigation Committee, its witnesses and a closeup of Senator Kefauver. A good deal of optimism is expressed in the 20 chapters of the report, which may be summarized in the author's own words: "We can lick . . . organized crime . . . if we recognize the alliance of criminals and their 'respectable' front men for what they are . . . and go after them with the same determination and ruthlessness that they employ in milking and perverting our society for their own gains. . . . There is nothing that the American people cannot overcome if they know the facts."

The Tightrope. By STANLEY KAUFFMANN. 304 pages. Cloth. Simon & Schuster. New York. 1952. Price $3.50.

This novel is "applied literature"; the author applies considerably less than adequate understandings of his analytic reading to his book. Though the publisher luridly announces on the jacket, "A Novel about Infidelity," and the author obligingly provides some "sexy" scenes, the real difficulty begins with the author's attempt to provide a clue to the neurotic reaction called chronic infidelity. The attempt miscarries, though only after a good start.

A married man, loving his loving wife, finds himself philandering—out of compulsion. In bed with a girl (the opening scene!), the author has this to say about his hero: "But there was a weakness in him that drove him towards girls who looked down on him" (p. 4). This inkling of masochistic regression (later repeated a few times) is immediately countered by the continuation of the sentence ". . . that made him want desperately to prove himself to them." Thus defense is confused with aim, and everything concentrated on an experience in puberty where the boy did not "prove" himself with a girl.

The author misunderstands the structure of the hero, and the blame for his difficulties is indirectly shifted to his father. All of this is mixed with much immature talk on morality. As an excursion into the psychology of infidelity the book seems to be made up of undigested and sporadically applied, book-knowledge. At one point an unconscious confession is forthcoming: In admiring a girl's intuition, the hero thinks, "Perhaps that was one of the things that had attracted him to her—that she knew through instinct what he'd had to wring out of years of reading and talk" (p. 9). Reading is exactly the right word.

A Sex Guide to Happy Marriage. By EDWARD F. GRIFFITH, M. R. C. S., L. R. C. P. 352 pages. Cloth. Emerson Books. New York. 1952. Price $3.00.

A London physician has written a highly readable book on the anatomy and physiology of sex as well as an analysis of the changing meaning and purpose of happy marriage today. It is explicit and frank and as is seldom the case with books on the subject, leaves nothing unsaid. The author does not use the "this will have to be decided by the couple" technique when he comes to intimate details, and the outspoken advice on every aspect from flirting to sex education of children is refreshing. Dr. Griffith, who has practised medicine since 1923 in London, seems to have covered the subject in a way that should impart valuable knowledge to young persons on the dual purposes of wedded bliss, and should fit them for the years ahead. In a nutshell, he says: "If you want to lead a happy sex life in marriage, visit a competent doctor."

Childhood Experience and Personal Destiny. By WILLIAM V. SILVERBERG. 270 pages. Cloth. Springer. New York. 1952. Price $4.50.

This book represents a rather naïve attempt at "reconciliation" of Freud's and Sullivan's theories. But there is, to start with, this reviewer thinks, nothing to reconcile: Sullivan's opinions are very near to those of Adler (though the name Adler is not even mentioned by Silverberg); why can in Sullivanese a spade not be called a spade, and an eagle, (*ein Adler*) an eagle?; Freud himself clarified the reasons for irreconcilability of Adlerian and Freudian viewpoints in *The History of the Analytic Movement.* The same holds true for Neo-Adlerians.

Likewise, there is a touch of unreality and of the comic, when Silverberg says: "Sullivan is the only psychiatrist known to me who might conceivably have made Freud's contribution if Freud had not existed." This possibility, looking in the past, is, to say the least, not borne out by facts.

Otherwise, Silverberg's great complaint against Freud is that "for those who have followed Freud he has left a legacy of confusion and bewilderment in the concept of the ego which must function executively but lacks the wherewithal for this task." Both the impression of confusion and of the ego's lack of "energy," are subjective feelings of the author: Analytic investigators have been describing for two and one-half decades (starting with Anna Freud's *The Ego and the Defense Mechanism*) numerous defenses created by the unconscious ego—hence it has always been assumed that the ego has "energy" at its disposal.

Silverberg's book is devoid of new ideas; it repeats in an extremely popular presentation what the author has already stated in previous studies. Readers familiar with the analytic literature will be surprised to see findings of a series of analytic investigators presented in the text as though describing accepted opinions—without their names being mentioned. Whether this will boost their egos, irritate them, prompt them to "heroic" or "unheroic" adaptations (to use Silverberg's terminology; like Sullivan, he is fond of neologisms), is their problem. In any case, these observations are especially pronounced in parts of the book dealing with infantile megalomania, orality, frigidity, and the psychologic superstructure in intercourse.

The personal pronoun is overworked in the book. To adduce the first sentences of the preface:

". . . mental illness originates in the adaptations made to traumatic experiences in early life . . . from birth to the age of six thereabouts, I do not intend to imply that experiences occurring after this period are not traumatic or are without effect . . . But I believe that the experiences of early life are highly formative. . . ."

Why not simply say: "Freud proved . . . etc., etc."

The purpose of this volume is enigmatic. It is too popular for a scientific

book; it is half a cut above the layman. The most likely explanation is that each group in psychotherapy needs a little psychotherapeutic Bible. The author's group now has a sermonoid.

Industrial Psychology. By JOSEPH TIFFIN. Third edition. 535 pages. Cloth. Prentice-Hall. New York. 1952. Price $5.00.

This work, now in its third edition, is known as a good text on introductory industrial psychology. The author, in his preface to the first edition, stated: "This book deals with applications of psychology that have been made in industry." This revision is, for the most part, a bringing up to date of the earlier editions, keeping the same goal in view.

The book proper could be divided loosely into three sections. The first and smallest part discusses such introductory topics as individual differences, the employment interview, and employee testing. Each of these is handled in an understandable yet rapidly-moving manner. The next section is a rather practical presentation of various vocational tests. Many of the common industrial measures are discussed and evaluated. There are also examples of ways in which a test may be used, and suggestions are made for test selections in various vocational settings. The author, in his chapter on visual skills and vision tests, presents six visual "job families" which are classified on the basis of vision requirements. This section is also written in an understandable and interesting manner. However, the reviewer was a bit disappointed with its brevity.

The last and major division of the book deals with practical application of industrial psychological methods. Such subjects as employee training and evaluating (including selection of adequate evaluating methods), merit rating, its values and dangers, methods of evaluating a job in order to establish a wage scale, fatigue and efficiency, accidents and safety (including a good discussion of accident proneness), and attitudes and morale are discussed in detail with a great deal of elemental and practical insight into actual work situations. This "application" section does more than discuss social situations, it actually goes into ways of doing something about them by using established psychological procedures.

There are three appendices. The first is a very understandable, straightforward presentation of elementary, descriptive statistics going from measures of central tendency through rank order and product moment correlations. Appendix B is a series of tables which indicate the proportion who will be satisfactory among those selected for given values of the proportion of present employees considered satisfactory. These are known as the Taylor Russell Tables. The publishers of some of the better known personnel tests are given in Appendix C.

The reviewer feels this book has three-fold value as an introductory text. First: It is both clearly and interestingly written. Second: It is of broad scope. Third: It places emphasis on practical application.

The Exceptional Child. Proceedings of a Special Conference Between Members of the Press and a Panel of Authorities Under the Auspices of the Child Research Clinic of the Woods School, a Private School for Exceptional Children. Langhorne, Pa. 30 pages. 1951. Distributed without charge.

The conference was held, according to the pamphlet, to "bring up to date, not only for parents, but for the general public, what is known about mental retardation in children, and what facilities and techniques are available for its treatment and control."

The first part of the bound pamphlet is a review by experts of the newest developments in psychology, psychiatry, pediatrics, education and institutional care. The second part is a question-and-answer discussion in which the press participated in "Meet the Press," TV-style.

Dr. Iago Galdston, New York Academy of Medicine, presided as moderator. The members of the symposium were: Dr. Sibylle Escalona, Menninger Foundation, Topeka, Kan; Edward Johnstone, State Colony, Woodbine, N. J.; Lee J. Marino, National Association of Parents and Friends of Mentally Retarded Children, New York; Leonard Mayo, Association for the Aid of Crippled Children, New York; Dr. John Rose, Philadelphia Child Guidance Clinic, Philadelphia; Dr. Joseph Stokes, Children's Hospital of Philadelphia.

The experts, who met under the auspices of the Woods Schools, Langhorne, Pa., estimated that there were 4,000,000 "exceptional" school-age children in this country, including those who are deaf, speech defective, crippled, mentally deficient and mentally gifted; but they estimate that only 10 per cent receive special help in our educational set-up. The importance of early diagnosis and special training was emphasized by every member of the symposium. Mention was made of the special emotional problems which parents of exceptional children face. Although not all exceptional children can profit by education, the consensus was that much more provision than at present should be made for them by voluntary as well as public agencies.

The pamphlet includes a list of publications by the Woods schools. It may be obtained without charge by writing to the Child Research Clinic of the Woods Schools, Langhorne, Pa.

How to Make Your Emotions Work for You. By DOROTHY C. FINKELOR, Ph.D. 206 pages and index. Cloth. Pellegrini & Cudahy. New York. 1952. Price $2.95.

The author begins by indicating that the majority of discontented and confused people in our present society do not know the difference between what we think is important to us and what we have accepted from other people as being important to us. Others have driven their own desires into

the deepest recesses of the mind. Although people may be shocked, surprised, or develop resentments, hate, fear, irritation, worry and become ill, because of their own reactions, they don't know why they feel or act the way they do. The chapter on how to make decisions will arouse considerable thought in the unhappy person. The chapter, "Know Yourself," should make some people aware of their situations.

The author is a psychologist and is dean of the Business Training College of Pittsburg. She writes clearly, basing her material on her experiences with people who get into difficulties. She believes that self-analysis helps but suggests that some will need further psychiatric aid—which is certainly understating the case vastly. Six "Emotional Quotient" tests are given. The subjects covered range from bringing up children to bringing up one's self in society. The concept of emotional maturity is well illustrated.

The reader will find his niche in the categories of the book if he is unhappy or discontented. It should be put, especially, into the hands of those who are emotionally immature or discontented, who feel they "know what they are doing" but don't seem to get anywhere. It is recommended for general mental hygiene reading.

The Will to Live. By ARNOLD A. HUTSCHNECKER, M. D. 274 pages. Cloth. Crowell. New York. 1951 (second printing). Price $3.50.

One might say that this book has mixed objectives. Its title *The Will to Live* attracts attention, sounds nonscientific and suggests that it is written to call the layman's attention to the great influence of mind over matter. Some parts seem intended to remind him that one's emotional problems can become so great that he wills to die and dies; and that the understanding and the adjustment of one's problems can stimulate the will to live a long and happy life in spite of physical infirmities.

However, the greater portion of the book is directed to the attention of the doctor of medicine who, too often, forgets the mind within the body and who forgets that the state of the patient's emotional life is very important in his procedure of curing the patient. This portion of the book many times criticizes the attitude of many doctors toward their patients and it tries, very graciously, to stimulate and to mold the doctor's thinking relative to the importance of psychosomatic medicine. The author sketches numerous case histories to emphasize his statements.

As a whole the book is easy reading and well written. Doctors, young and old, can profit greatly by reading it. The layman will profit, too; but, in view of the fact that the author seems to be writing directly to the doctor, and suggesting needed revisions in methods of understanding and treating the psychosomatic patient, this reviewer believes that the volume should be a doctor's instead of a lay person's book.

Les Hallucinations. By JEAN LHERMITTE. 230 pages. Paper. G. Doin. Paris. 1951. Price 930 fr.

The author of this French text has reviewed the problem of hallucinations from the standpoint of a psycho-physiological reaction of the organism. In the introduction, there is an interesting historical review of the problem, mentioning mainly the European schools of thought. The book is divided into chapters according to the manifestations of the hallucinatory experience, visual phenomena occupying a large proportion, as they are better known experimentally and clinically. A chapter deals with the problem of phantom limbs and another one with those phenomena whereby the individual, apparently in a normal state of mind, sees his own image in front of him. Following this, auditory hallucinations are studied in a comparatively short chapter and are considered as more complex phenomena, verbalization being required for such experiences. Finally the author deals with the somatic experiences of psychotic patients and the hallucinations of those patients he calls "*faux mystiques.*" The author has also compiled many cases of hallucinatory experiences following lesions of the dorsal part of the cerebral peduncles.

Experimentation is reviewed, concerning stimulation of different areas of the cerebral cortex and also concerning phenomena appearing following localized lesions. The author concludes that hallucinations are a complex phenomena of a psychophysiological nature requiring the functional contribution of the midbrain, the diencephalon, and the telencephalon. "Our purpose is to demonstrate the impossibility of explaining by one theory all the hallucinatory phenomena that are presented both by our patients and those subjects who otherwise seem to be in a state of mental health." The author has continued developing theories that originated with Janet. He has succeeded in presenting his illustrative material in a concrete and interesting manner.

I Came Back. By KRYSTYNA ZYWULSKA. 246 pages. Cloth. Roy Publishers. New York. 1951. Price $2.50.

This is a sometimes exciting tale of the years spent by a Polish woman in the notorious Nazi concentration camp at Oswiecim where some of the foulest indignities ever perpetrated on human beings were the order of the day. It is autobiographical, and there are times when the author's writing carries a frightening impact. At others, there is overemphasis on dialogue, which, while doubtless lending an authentic air to the incidents, is apt to run in circles. It may be a little late in the day for many to get back into the feeling of revulsion at these brutalities, since such things are all too soon forgotten and this book may leave the impression that it is fiction. It is a frightful tale of torture and murder, and is commended for corrective reading by those who would rather forget it all.

After Forty-Five. Candid Observations on Middle Age. By ALLEN DASHER. 141 pages. Cloth. Exposition Press. New York. 1952. Price $3.00.

When the author, in his preface states, "Greetings, brethren of the glorious age of bifocals, bridgework, bicarbonate, and the 'battle of the bulge,'" one knows to whom he is directing his candid opinions. The author admits that he hasn't anything especially new to give out, but he dares to say it and believes that he is saying what most middle-aged persons want to say but do not quite dare to. The author gives the reader a good deal of "straight" talk about many of the vexed questions relating to the philosophy of life, of sex, of marriage and of religion. His style is pleasing and, at times, humorous. His ideas are stimulating and challenging. They will be enjoyed by others than the person of 45.

It is a common experience of persons who are of middle age to begin to look back at life and wonder what it has all meant but it is pleasing to have another person say it for one. For example, "Gone are all those ambitious dreams of our youth, gone never to return. At middle-age, with our most active and most productive years behind us, you and I have turned out to be only average men and women, common members of a class of millions. Maybe it's nothing to brag about, but certainly it's no disgrace, nothing to apologize for, yet most of us feel obliged, on occasion, to trump up excuses for the fact we never made a cool million or got to be congressman or the president of our company. . . . The functioning thing about it is that we aren't fooling anybody, not even ourselves. Still we go on making the same old excuses—and always will."

The T. S. Eliot Myth. By ROSSELL HOPE ROBBINS. 226 pages. Cloth. Schuman. New York. 1951. Price $3.00.

This book by an English specialist in Middle English verse who now teaches in Brooklyn is perhaps one of the most shocking critical appraisals of a writer in our time. Robbins can find nothing that is not decadent and degrading in a man who after all cannot fail to command some respect for his work. Eliot is dismissed as "a poet of minor achievement," and again "emotionally sterile . . . with a mind coarsened by snobbery and constricted by bigotry." Robbins, who seems to be thoroughly incensed for the entire length of the volume, takes great relish in pointing out that Eliot is no poet, but a propagandist, and forgets that there is such a thing as good poetry in propaganda. He goes on to knife into Eliot with jabs of "antihuman," "man-hating," "life-hating," and "unashamedly reactionary." Were there one saving grave advanced for Eliot, perhaps this book could be taken seriously, but it sounds too much like a personal grudge match or the work of a critic for Pravda.

Our Children Today. Sidonie Matsner Gruenberg and staff of Child Study Association of America, editors. 366 pages. Cloth. Viking Press. New York. Price $3.95.

A symposium of 26 experts in the field of child study and guidance have here combined their efforts to bring up to date the work published 20 years ago, now considered a classic and known as *Our Children.* They have to some extent, revised the thinking of that period in matters of the changing modes in all phases of child growth, from infancy through adolescence. The conflicting factors in home, school and social life are appraised in the light of new trends and ideas; and the experts have pretty well concluded that psychology spiced with a bit of Freud can resolve most of the aggravations which assail children today.

There is much that is provocative and much that will be argued by both parent and educator, but there is little doubt that this work will be a valuable handbook for anyone dealing with children. The section on school methods is excellent. But when most of our schools catch up with the ideas set forth here, most of the children now in school will have grown up anyhow. Perhaps their children will come home from school and "let them in on" why they are problem adults.

Shadow of a Man. By May Sarton. 304 pages. Cloth. Rinehart. New York. 1950. Price $2.75.

There are books which tell a story straightforwardly, without pretensions; if the author happens to be a real writer some glimmer of unconscious understanding will be found between the lines. Then, there are books which use the opposite technique: The story is told in innuendos, allusions, hints, pretending deep insight. The result is naïvété shrouded in pretensions. Unfortunately, *Shadow of a Man* belongs to the second category. An "extraordinary" mother has died; the son (half French, half Bostonian) tries to clarify his feelings via detours. The detours are boring, loquacious, and meaningless. The happy ending is not comprehensible, nor is the description of the conflict of value. The layer of pretensions is so massive that not even simple human sympathy comes to the fore.

Return to Life. By Lily MacLeod. 128 pages. Cloth. Lippincott. Philadelphia and New York. 1951. Price $2.00.

This is a story for sick and well people . . . but most of all for people whose families include a cancer victim. Lily MacLeod is still fighting this enemy, but she has faced the heartaches and setbacks and fears with courage. In so doing she has learned how strong are man's inner resources. It was her doctor who suggested that she share these experiences with others through her book. It is splendid mental hygiene, and many readers will be grateful to them both.

Fathers Are Parents Too. By O. Spurgeon English, M. D., and Constance J. Foster. 304 pages. Cloth. Putnam's. New York. 1951. Price $3.75.

Do you know that if you, as a father, are strict and harsh with your son, he may grow up to be afraid of his job and his boss? A domineering parent can make a revolutionary or a nonentity of the lad; and without the father's advice on sex, his daughter may not be able to face the fact of life as a successful wife and mother? These and hundreds of other psychologically sound, if oversimplified points are brought out in this highly readable book by a professor of psychiatry of Temple University and a free-lance writer who have pooled their talents on the vital subject of the father's role in guiding his children. It cannot fail to jar the father who is so intent on making money that his children are walking to the altar before he realizes it. Business, golf and the Sunday paper long have put a wall between the head of the house and his children and if the right people acquire this book it may help fathers to realize their part in the lives of their children.

Psychoanalysis and the Social Sciences. Volume 3. Géza Róheim, editor. 313 pages. Cloth. International Universities Press. New York. 1951. Price $7.50.

This third volume devoted to psychoanalysis and the social sciences maintains the high standards and the general interest of the preceding two. The articles on anthropology and folklore are outstanding. In the section on religion, A. Fodor discusses Freud's suggestion that Moses was an Egyptian and comes to the interesting conclusion that he was a Hebrew, on the basis of the same sort of psychoanalytic evidence, of course, that Freud advanced for the contrary thesis. Gustav Bychowski contributes an unusual paper on Walt Whitman. Whitman, he believes, achieved sublimation through his poetry until he finally "completely overcame his narcissistic isolation." This is not a conventional view, and the reviewer thinks that both analytic readers and students of literature will find it stimulating.

The Rejected Lovers. By William Steig. 154 pages. Cloth. Knopf. New York. 1951. Price $2.95.

It is usual to look at a Steig collection, or even a single cartoon, many of which have appeared in *The New Yorker* and other leading magazines, with the thought that here is something to relish in a humorous way. With this volume, Mr. Steig seems to have retreated into himself, using psychological conflict without let-up until the reader must feel that love is as desirable as a good case of measles. This is not to say that this collection should be passed up, for it has the stamp of splendid work beneath the symbolism.

Dictators and Disciples. From Caesar to Stalin. By GUSTAV BYCHOWSKI, M. D. 264 pages. Cloth. International Universities Press. New York. 1948. Price $4.25.

This book is a series of psychoanalytic discussions of Caesar, Cromwell, Robespierre, Hitler and Stalin, followed by a short discussion of the origin and prevention of dictatorship. Bychowski thinks that dictators arise when the "collective ego" of a people is weakened. Some of the weakening factors, he thinks, are economic and will have to be remedied by "more equitable distribution" of indispensable goods. He sees education also as playing an important preventive role. The five dictators whose careers are reported here are traced from the personal roles of rebellion against authority to the re-enacting on national scales of Freud's crime of the primal horde. This volume requires a certain analytic background for understanding, but it is not exceedingly technical and should be readily comprehensible by any person with fair theoretical orientation.

Group Treatment in Psychotherapy. By ROBERT G. HINCKLEY and LYDIA HERMANN. 133 pages plus index. Cloth. University of Minnesota Press. Minneapolis. 1951. Price $3.00.

This book is a well-written, clearly-presented introduction to group therapy. The work is based on the writers' experience with this method as conducted in the Student's Mental Hygiene Clinic of the University of Minnesota.

This reviewer feels that the discussion of the functions of the therapist and of the group should be more detailed and intensively followed in any introductory volume. Discussion of defense mechanisms, as encountered in the therapeutic setting, is exceptionally good. The work in general can be recommended for beginners in this area; however, it does have the limitations of many introductory volumes, in that certain aspects of its subject matter were entitled to far more consideration.

So Your Child Won't Eat. By HILDA SACHS. 62 pages. Cloth. Sterling Publishing Co., Inc. New York. 1951. Price $1.00.

The author's son is a hearty-eating child and she seems assured that what's good enough for her offspring is at least good enough for yours. This is probably generally true, and Mrs. Sachs has prepared enough menus, using every color in the spectrum, to stimulate the appetite of the most jaded tot. The book, however, deals only with the very young, apparently ignoring the fact that the situation can be more grave in the older child. However, there is an encouraging note by a pediatrician who, in dealing with the psychological aspect of feeding, assures us that no child ever willfully starves himself to death.

One Little Boy. By DOROTHY W. BARUCH. 242 pages. Cloth. Julian Press. New York. 1952. Price $3.50.

This is the story of Kenneth, who plays the title role in the drama of an everyday sort of family—which becomes a strangely uncommonplace family, as the reader sees, in its history, flashes and reflections of the life he has considered to be only his own. Miss Baruch has presented the general public with a book which, while purporting to tell of the troubles and treatment of one child, vividly demonstrates the psychodynamics and psychopathology which lie at the base of many of the commonly seen neurotic patterns of our present culture. Miss Baruch's story is, also, that of Vic and Cathy, father and mother of Kenneth, who, in their own love-starved life had laid the foundation for their son's difficulties, and who are receiving treatment. Their struggle to achieve maturity while, at the same time, attempting to fill the role of parents, rearing their own children to maturity, is sympathetically and warmly shown.

This is a book which may be counted on to provoke thought, discussion, and action in any group to which it may be introduced.

Heredity, Race and Society. Revised and enlarged edition. By L. C. DUNN and TH. DOBZHANSKY. 143 pages including index. New American Library. New York. 1952. Price 35 cents.

Professors Dunn and Dobzhansky have revised and expanded by 28 pages their pocket volume on heredity, race and society, written for, and originally published by, Pelican Books in 1946. This is a carefully-written work; the material in it is generally accepted and this reviewer thinks it should be readily understood by any person with a high school education.

The original publication, which went through four printings, was noted by the reviewer in this QUARTERLY of October 1946 as "to be highly recommended." This conclusion applies equally to the revised version, which has been brought up to date and considerably improved in presentation. Selling for 35 cents, this small volume—which aims to combat prejudice, ignorance and hate in consideration of what man is and from whence he derives, is a most valuable contribution to mental hygiene.

Relation of Psychological Tests to Psychiatry. Paul H. Hoch, M. D., and Joseph Zubin, Ph. D., editors. 301 pages plus index. Cloth. Grune & Stratton. New York. 1952. Price $5.50.

This book is a report of the "fortieth annual meeting of the American Psychopathological Association, held in New York City, June, 1950." The content is interesting, in that it concerns the touchy problem of the entire relationship of clinical psychology to psychiatry. Outstanding men contribute to this volume, representing both disciplines, and the material is

presented in a give-and-take manner that adds interest to consideration of the present problems of relationship between the professions. In general, the conclusions reached by representatives of the medical profession regarding diagnostic (projective) testing is that such tests are helpful in elaborating clinical impressions, but do not enter the realm of the objective laboratory tests, such as the Wassermann, and are thus limited, because of their subjectivity, in the diagnostic setting.

The book brings one fairly up to date but adds nothing new regarding the role of the clinical psychologist in his professional relationship.

Trial of the Seddons. Filson Young, editor. 420 pages. Cloth. British Book Centre. New York. 1952. Price $3.25.

The "Veronica" Trial. G. W. Keeton and John Cameron, editors. 248 pages. Cloth. British Book Centre. New York. 1952. Price $3.25.

Here is a second edition of a trial first reported in this series in 1914. The case is of medical interest as well as legal, as it involved the difficult business of convicting a defendant of poisoning. It is of psychological interest also as the jury convicted Seddon and acquitted his wife on evidence which appears to have been directed equally against both of them. Furthermore, as the editor remarks in his introduction, it seems almost to illustrate conviction, not on establishment of guilt, but on failure to prove innocence.

The "Veronica" Trial is the sordid account of murders during a mutiny at sea, and is remarkable in that no motivation for them seems to have been established. It is of some interest, therefore, to students of criminal psychopathology.

Therapeutic Studies on Psychotics. By JULIUS I. STEINFELD, M. D. 256 pages. Cloth. Forest Press. Des Plaines, Ill. 1951. Price $3.00.

Steinfeld's work is both interesting and challenging. Analytically-oriented, he discusses "The Significance of the Transference-Countertransference in the Treatment of Psychotics," the use of ECT in conjunction with therapy, the use of the male sex hormone with chronic female patients, and other methods in treatment of psychotics. He accepts the responsibilities of the therapist in dealing with psychotics and also emphasizes the importance of availability to the patients.

It is refreshing to read a book that is presented conservatively after its author has met fair success by his methods in this most difficult of fields. Although many of the theories followed are debatable, still one can find little fault with unwarranted conclusions. It may be noted that Steinfeld's ability to "give himself," almost without reservation, to the schizophrenic patient, has played no small part in the success of his work.

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After coming to this country in 1938, and prior to his present appointment in 1946, he was professor of psychology at Black Mountain College, North Carolina, and was a research-fellow in psychiatry at the Henry Phipps Clinic, the Johns Hopkins University, from 1944 to 1946. He is now connected as a lecturer with the University of Kentucky and is associate in psychiatry at the University of Louisville Medical School.

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He was in charge of the children's service of the Neuropsychiatric Institute and instructor in psychiatry at the University of Michigan Medical School in 1946 and 1947; and was in charge of children's services in the division of psychiatry, Kings County Hospital, Brooklyn from 1947 to 1950. Dr. Pasamanick was associate in psychiatry, then assistant professor of clinical psychiatry at the University of the State of New York Medical School at New York City (Long Island College of Medicine) from April 1950 to July 1950.

RUDOLF DREIKURS, M. D. A native of Vienna, Dr. Dreikurs was graduated from the University of Vienna in 1923. During his residency in psychiatry, he inaugurated psychiatric social work in Vienna and organized the first mental hygiene committee. He was a student, and later a collaborator, of Alfred Adler; and he directed clinics for alcoholics and child guidance. He is now professor of psychiatry at the Chicago Medical School, lecturer in education at Northwestern University and Indiana University, director of the Community Child Guidance Centers of Chicago and editor of the *Individual Psychology Bulletin*.

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BERNARD H. SHULMAN, M. D. Born in Baltimore, Dr. Shulman received his A. B. degree from the Johns Hopkins University in 1943 and his M. D. degree from Chicago Medical School in 1946. He has published several papers in the field of gastroenterology, together with Dr. Frederick Steigmann, as a result of research at Cook County Hospital in Chicago. He is now associated with Dr. Rudolf Dreikurs in the practice of psychiatry and is associate medical director of the Community Child Guidance Centers of Chicago. He is a resident in psychiatry at the Hines Veterans Administration Hospital, Hines, Ill.

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FÉLIX MARTÍ-IBÁÑEZ, M. D. Dr. Félix Martí-Ibáñez received his M. D. at the Universities of Barcelona and Madrid, Spain. His doctoral thesis on psychiatric and psychologic aspects of Indian philosophy was declared outstanding by the University of Madrid and was published in book form. From 1931 to 1939 he practiced psychiatry in Barcelona. From

1936 to 1939 he was director of public health of Catalonia, and undersecretary of public health of Spain. In the former capacity, he reorganized psychiatric services in Catalonia. He taught and lectured on the history of medicine and psychology in over 30 medical societies and university centers in Spain.

He is the author of two novels and 11 books on psychology and medical history published in Spain and Latin America. In 1946 he lectured on psychiatry and the history of medicine at the schools of medicine of 14 Latin American countries. Since 1934, he has participated actively in all International Congresses of the History of Medicine, Psychology and Psychiatry. Since 1948, he has collaborated in psychiatric research at the van Ophuijsen Center and The Creedmoor Institute for Psychobiologic Studies.

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Dr. Mettler has been Commonwealth Fund visiting professor at Long Island Medical College; he was co-ordinator of research for the New York State Department of Mental Hygiene in 1948 and 1949 and is now director of research for the department. He has been consultant at the New Jersey State Hospital at Greystone Park since 1947 and to the United States Veterans Administration since 1949. He is chairman of the committee on psychosurgery of the division of mental hygiene of the National Research Council. He is a fellow of the New York Academy of Medicine and the New York Zoological Society. His numerous memberships include such

varied fields of interests as the American Association of Anatomists, the Society for Experimental Biology and Medicine, the American Association of Physical Anthropology, the American Neurological Association, and the Harvey Society. He has been active in the study of such problems as group psychotherapy and mental hygiene.

Dr. Mettler has been on the editorial board of the *Journal of Comparative Neurology* since 1948 and on the editorial board of the Association for Research in Nervous and Mental Diseases since 1943. He is a delegate, United States National Committee for UNESCO. Dr. Mettler is the author of a number of books and over 150 contributions to scientific journals. He is married and has two children.

DANIEL BLAIN, M. D. Dr. Blain has been medical director of the American Psychiatric Association since 1948. He was born in 1898 in Kashing, China, of American parents. He received his bachelor's degree at Washington and Lee University, did pre-medical study at the University of Chicago and received his M. D. from the Vanderbilt Medical School. He interned and was house officer at Peter Bent Brigham and City hospitals, Boston. He later was a fellow at the Austen Riggs Foundation, Stockbridge, Mass., and served with private hospitals in Connecticut and New York. He was associated with Dr. John A. P. Millet in directing his own private sanatorium at Lake George, N. Y., from 1935 to 1940. He taught at Georgetown Medical School in 1947 and 1948 and was clinical professor of psychiatry there when he became medical director of the psychiatric association.

Dr. Blain has served as chief of the division of psychiatry and neurology of the United States Veterans Administration and has been a consultant to the Veterans Administration. He is a fellow of the American Psychiatric Association, the American College of Physicians and the American Medical Association, and is a member of the New York Neurological Association, the American Psychoanalytic Association, the American Association for Research in Nervous and Mental Diseases, and other professional organizations. During World War II he served in the public health service with the rank of lieutenant-commander, later captain. Dr. Blain is married and has one son. His home is in Washington, D. C.

WILLIAM BROWN, M. D. Dr. Brown is a graduate of New York University and received his medical degree from University and Bellevue Hospital Medical College in 1931. He interned at Jersey City Medical Center and was assistant physician from 1933 to 1936 at Central Islip (N. Y.)

State Hospital. He was in the private practice of psychiatry from 1936 to 1941. He was in military service from 1941 to 1946, where he became a lieutenant-colonel, chief of neuropsychiatric service in a general hospital. He is now assistant chief of the neuropsychiatric service of the Veterans Administration Hospital, the Bronx, N. Y. He is a diplomate of the American Board of Psychiatry and Neurology.

SELIG M. KORSON, M. D. Dr. Korson is a neuropsychiatrist, senior grade, at the Veterans Administration Hospital, Northampton, Mass. He served four years with the United States Army Medical Corps and was the last commanding officer of the 304th General Hospital on the island of Tinian in the Marianas, in charge of deactivation of that unit. He was a member of the staff of Grafton (Mass.) State Hospital for three years following his army service, and was promoted to assistant superintendent of that institution.

His publications have appeared in the *Journal of Nervous and Mental Diseases*, the *Digest of Neurology and Psychiatry* and *Diseases of the Nervous System*.

LESLIE M. LE CRON. Leslie M. Le Cron, B. A., is a graduate of the University of Colorado, a psychologist practising in Los Angeles and specializing in hypnotherapy. He is a member of the Society for Clinical and Experimental Hypnosis, one of the editorial board of the new journal published by this group, and is an honorary member of the British Society of Medical Hypnotists. A number of his articles have appeared in the technical journals, and he is co-author with Dr. Jean Bordeaux of *Hypnotism Today* (Grune & Stratton, 1947). In 1952, Macmillan published *Experimental Hypnosis*, a symposium of articles by leading authorities, which were collected and edited by Mr. Le Cron.

SANDOR FELDMAN, M. D. Dr. Feldman is associate professor of psychiatry at the University of Rochester, School of Medicine and Dentistry. He is a member of the American Psychoanalytic Association and the New York Psychoanalytic Society. He is the author of numerous psychoanalytic papers, four of them published in this QUARTERLY.

NEWS AND COMMENT

NEW YORK LAUNCHES NEW INTERDISCIPLINARY RESEARCH PROJECT

A new long-term research project into the causes, prevention and treatment of mental disorders, in which at least eight medical and social science disciplines will be called upon to co-operate, is being set up at Rockland State Hospital, it is announced by Commissioner Newton Bigelow, M. D., of the New York State Department of Mental Hygiene. Nathan S. Kline, M. D., director of research at Worcester (Mass.) State Hospital since 1950, has been named to head the new research group, and has also been appointed to the department of neurology, College of Physicians and Surgeans of Columbia University.

Dr. Kline's staff will include appointees in research psychiatry and psychology, endocrinology, biochemistry and nursing, besides a research secretary and an office staff. In addition to the specialties represented on the research group, work in physiology, sociology, constitutional medicine, and anthropology will be involved. Dr. Bigelow notes that there has been some study of mental illness in all these fields, and that the new project will endeavor to consider results in all of them in common terms, a matter calling for the development of "concepts and language universal to all the biological sciences . . . so that findings in each science may be understood by the group."

Dr. Kline proposes to use the statistical method of cluster analysis in the attempt to find correlations among the sciences, a method used in preliminary experiments at Worcester, where characteristic similarities in incidence and action of widely differing phenomena from different specialties were found in association—or cluster formation. The Worcester studies were pilot projects, and the new Rockland inquiry represents the first major effort to investigate cluster formation by drawing on as many as possible of the scientific disciplines that may be concerneed.

Dr. Kline is a native of Philadelphia, a graduate of Swarthmore College and Clark University, and a graduate in medicine of New York University (in 1943). He interned at St. Elizabeths Hospital, Washington, D. C., held a psychiatric residency there and later did several years of postgraduate work at Harvard, Princeton and Rutgers. He has been assistant to Drs. J. Lawrence Poole and Fred A. Mettler in the co-operative brain surgery research project conducted by Columbia University and New Jersey State Hospital at Greystone Park. He is 36 years old.

DR. BECKENSTEIN GOES TO BROOKLYN; DR. BINZLEY TO SYRACUSE PSYCHOPATHIC

Nathan Beckenstein, M. D., director of Syracuse (N. Y.) Psychopathic Hospital since 1950, when he was promoted to that position from assistant director of Brooklyn State Hospital, will return to Brooklyn on November 1, 1952 as director of that institution. Richard F. Binzley, M. D., associate director of Pilgrim (N. Y.) State Hospital has been named to assume the directorship of the Syracuse hospital to succeed Dr. Beckenstein. Dr. Beckenstein succeeds the late Dr. Clarence H. Bellinger as director of Brooklyn.

Dr. Beckenstein was born in Brooklyn and, since his graduation from Cornell University Medical College in 1928, had spent most of his professional life there. He joined the Brooklyn State Hospital staff in 1929.

Dr. Binzley, born in 1903, is a graduate of the School of Medicine of Western Reserve University and has been with the New York State hospital system since he was appointed to the staff of Pilgrim State Hospital in 1933, following internship and a residency at Grasslands Hospital, Valhalla, N. Y. His wife is Constance Barwise, M. D.

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CLARENCE H. BELLINGER, M. D., DIES AT 65

Dr. Clarence H. Bellinger, head of Brooklyn State Hospital, since its separation from what was then its Creedmoor division in 1935, died unexpectedly of a heart attack at the Brooklyn institution on August 12, 1952. He had been with the New York State hospital system for 42 years.

Dr. Bellinger, born in Lebanon, N. Y., in 1887, was a graduate of the Syracuse College of Medicine in 1910. He joined the New York State service that same year as an intern at St. Lawrence State Hospital. He served later at Binghamton and Utica State Hospitals and was first assistant physician at Utica and acting medical inspector when he was named superintendent, a title later changed to senior director, at Brooklyn.

Brooklyn State Hospital under Dr. Bellinger pioneered in the development of insulin, metrazol and electric shock therapies in this country. He was personally interested and very active in developing hospital-community relationships in Brooklyn and in working for Brooklyn's mental hygiene and child guidance programs. He was author or co-author of numerous scientific reports; and he was professor of psychiatry at the Long Island College of Medicine, now the College of Medicine of the State University Medical Center at New York.

MORENO INSTITUTE ANNOUNCES WORKSHOP PROGRAM

The Moreno Institute of New York City and Beacon, N. Y. announces a series of three-day and four-day workshop programs to be conducted at Beacon over the 1952 and 1953 holidays of Thanksgiving, Washington's Birthday, Easter, Independence Day and Labor Day. The fall semester of postgraduate studies—open to graduates of approved colleges—is now being conducted in New York City, with courses covering psychodrama, sociodrama, sociometry and allied subjects. Registration for the spring semester will be from February 2 to 6.

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SIR HUGH CAIRNS, BRAIN SURGEON, DIES AT 56

Sir Hugh Cairns, internationally-known brain surgeon, and professor of surgery at Oxford University, died in Oxford on July 18, 1952, after an illness following an abdominal operation in May. He was 56 years old. Born in Australia and educated in medicine in England, Sir Hugh had been a student—on a Rockefeller traveling scholarship—of Harvey Cushing in Boston. Sir Hugh had attended Lawrence of Arabia in 1935 and General George Patton in 1945, following the accidents that led to their deaths.

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BLAIN AND FELDMAN TO STUDY NEW YORK RELEASE PROBLEMS

Daniel Blain, M. D., medical director of the American Psychiatric Association, and Robert J. Feldman, New York City attorney, will act as psychiatric consultant and legal counsel for the study of New York laws and procedures which is being made at the direction of Governor Dewey by the New York State Mental Hygiene Council, it has been announced by the Hon. Charles L. DeAngelis of Utica, N. Y., chairman of the council.

Dr. Blain will serve the council in his private capacity, not as an officer of the psychiatric association. He has personally visited 80 per cent of all the public and private mental institutions in the United States and Canada over a period of years, and so has unusual acquaintance with conditions and procedures. Mr. Feldman, a member of a New York City law firm, served the army as a civilian specialist and later served in the navy as a lieutenant in World War II. He was formerly law secretary to New York State Supreme Court Judge Edgar J. Nathan.

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KAUFMAN GIVES FOURTH HUTCHINGS MEMORIAL LECTURE

M. Ralph Kaufman, M. D., chief psychiatrist at Mount Sinai Hospital, New York City, spoke on "The Psychiatrist in a General Hospital Setting," as the fourth annual Richard H. Hutchings memorial lecturer at the

College of Medicine, Syracuse University, on October 6, 1952. The lecture, attended by physicians and by Syracuse medical students, is one of a series in honor of the late Dr. Hutchings, sponsored jointly by the Richard H. Hutchings Memorial Trust Fund, the Onondaga County Medical Society, the Syracuse Academy of Medicine and the State University of New York College of Medicine at Syracuse.

Preceding the lecture, the Hon. Charles L. DeAngelis of Utica, spoke on "Doctor Hutchings," a personal tribute.

Dr. Hutchings, editor of this QUARTERLY until his death in October 1947, had been professor of clinical psychiatry at the Syracuse College of Medicine, had been superintendent of St. Lawrence and of Utica, N. Y., state hospitals, and had been president of the American Psychiatric Association. Dr. Kaufman's lecture, like the three which preceded it, will be published in THE PSYCHIATRIC QUARTERLY.

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V.A. ANNOUNCES COURSE IN PSYCHIATRY AND NEUROLOGY

The Veterans Administration has asked the QUARTERLY to call the attention of its readers to its new four-month course in psychiatry and neurology, adapted for non-specialist physicians who may be assigned to duty in any of 22 predominantly psychiatric hospitals. The course will be conducted in Pennsylvania, California and Illinois.

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BLONDIE COUNTS DAYS FOR MENTAL HEALTH

Blondie, Dagwood and the rest of the Bumstead family, including Daisy and the pups, have embarked on a two-year tour in the interests of mental health, making daily appearances on a 1953-1954 calendar drawn especially for the New York State Department of Mental Hygiene from Chic Young's famous comic strip. This is the Bumsteads' fifth appearance for the department; it was arranged through the co-operation of Joe Musial, educational director for King Features. The department sponsored previously a Blondie comic book, a Blondie bookmark, an animated exhibit and a puppet show. The new calendar appeared for the first time at the department's exhibit at the annual state fair in Syracuse.

The calendar is available to the general public, like the comic book and the bookmark. More than 1,000,000 copies of the comic book have been distributed since it was introduced at the 1950 New York State Fair; and almost half a million bookmarks have been distributed since their introduction at the fair last year. Requests for the calendar should be addressed to the Department of Mental Hygiene, Albany, N. Y. Single copies will be mailed free to individuals anywhere; and limited quantities will be available free to recognized agencies and organizations in New York State.

NEW CHILD PSYCHIATRY DIRECTOR AT MENNINGER FOUNDATION

J. Cotter Hirschberg, M. D., has been named director of the Menninger Foundation department of child psychiatry, including the Southard School. He was formerly director of the University of Colorado Medical Center's mental hygiene and child guidance clinic; and he succeeds Dr. Edward D. Greenwood, who is now a special assistant to Dr. William C. Menninger and a consultant in child psychiatry.

AIRD HEADS ELECTROENCEPHALOGRAPHIC SOCIETY

Dr. Robert B. Aird of the University of California Hospital, San Francisco, became president of the American Electroencephalographic Society at its sixth annual meeting in May 1952; and Dr. Mary A. B. Brazier of the Massachusetts General Hospital, Boston, was named president-elect.

NEW YORK STATE ALCOHOLISM COMMITTEE MEETS

The eight-member advisory committee named by Governor Dewey to assist the State Mental Health Commission in a program for community services and research on alcoholism conducted its first meeting on October 1, 1952 in the Albany offices of the New York State Department of Mental Hygiene. Representatives of a number of New York State departments and interested agencies attended. Members of the advisory committee are Edmund T. Delaney, New York City attorney; James E. Fish, M. D., of Schenectady; Joseph Hirsch, Ph.D., of the National Research Council; Marvin A. Block, M. D., of Buffalo; Harold W. Lovell, M. D., of New York City; John L. Norris, M. D., of Rochester; Harold Riegelman, New York City lawyer; S. Mouchly Small, M. D., professor of psychiatry at the University of Buffalo School of Medicine; and Admiral Francis E. M. Whiting, U. S. N., Ret., former president of the License Beverage Industry, Inc., the public relations organization for the liquor industry.

DR. N. M. OWENSBY, FOUNDER OF SOUTHERN ASSOCIATION, DIES

Dr. Newdigate Moreland Owensby, Atlanta psychiatrist, and founder, in 1935, of the Southern Psychiatric Association, died in Atlanta on August 10, 1952 at the age of 69. He was a graduate of the University of Maryland and later studied in Great Britain, Germany, Austria and France. In Atlanta, he directed his own clinic and was consulting psychiatrist to three Atlanta hospitals and two railroads.

CALIFORNIA OFFERS TRAINING FOR CERTIFICATION

The California Department of Mental Hygiene has announced a five-year course of psychiatric residency and staff membership which will "normally fulfill the requirements of the American Board of Psychiatry and Neurology for the specialty certificate in psychiatry." Three years are regular residency training; in the second and fifth, the resident serves as a staff psychiatrist at a California state hospital or clinic.

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ACADEMY NAMES EDUCATION SUBCOMMITTEE

The New York Academy of Medicine has named a special subcommittee, headed by Dr. Bernard S. Oppenheimer as chairman, as a Subcommittee on the Study of Professional Services for Mental Hospitals of New York State—of the Committee on Medical Education. The subcommittee is sending a questionnaire, aiming to collect information and determine the extent of the reservoir of potential teachers to improve educational opportunities and facilities for resident staffs of New York State mental hospitals. The project is in co-operation with Commissioner Newton Bigelow, M. D., of the New York State Department of Mental Hygiene.

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ATOMIC ENERGY COMMISSION RENEWS PSYCHOBIOLOGIC STUDY CONTRACT

The Creedmoor (N. Y.) Institute for Psychobiologic Studies has announced renewal of its contract with the Atomic Energy Commission for the study of the relationship between skin groups and blood groups. The project is under the direction of Drs. Frank Co Tui, Arthur, Mortimer and Raymond Sackler, and Harry A. LaBurt, who is senior director of Creedmoor State Hospital. The project is under the administrative supervision of the New York State Department of Mental Hygiene, and has been in operation since September 1951.

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GENERAL SEMANTICS SEMINARS ANNOUNCED

The Institute of General Semantics has announced a special Seminar in New York City to be conducted from November 13 to 22 and on December 5 and 12, 1952 as an introduction to general semantics for beginners and a demonstration of teaching procedures for the more experienced. The institute's fifteenth winter holiday seminar will be at Lakeville, Conn., from December 27 to January 3, 1953, and will be a basic seminar.

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RICHARD H. HUNGERFORD, *Editor*

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